DOCUMENT RESUME

ED 122 948 PS 008 581

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TITLE Research Relating to Children. Bulletin 25: April-December 1969.
INSTITUTION Children's Bureau (DHEW), Washington, D.C. Clearinghouse for Research in Child Life.
SPONS AGENCY Office of Child Development (DHEW), Washington, D.C.
PUB DATE 70
NOTE 140p.

EDRS PRICE MF-$0.83 HC-$7.35 Plus Postage
DESCRIPTORS Adolescents; *Annotated Bibliographies; Child Abuse; *Child Development; *Children; Cultural Factors; Delinquency; Educational Research; Exceptional Child Research; Family Relationship; Health Services; Infant Behavior; Longitudinal Studies; *Research Methodology; *Research Projects; Social Services; Socioeconomic Influences

ABSTRACT

This research bulletin includes reports of research (on children) in progress or recently completed from April through December, 1969. Each entry includes information concerning the investigator, purpose, subjects, methods, duration, cooperating groups, and findings (if available). The reports are listed under several topical headings: (1) long-term research, (2) growth and development, (3) special groups of children, (4) the child in the family, (5) socioeconomic and cultural factors, (6) educational factors and services, (7) social services, and (8) health services. (BRT)

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bulletin no. 25

RESEARCH relating to CHILDREN

PS 008581

U.S. DEPARTMENT of HEALTH EDUCATION and WELFARE
OFFICE of CHILD DEVELOPMENT
OCD
Children's Bureau
1970

2

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CLEARINGHOUSE FOR RESEARCH IN CHILD LIFE

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RESEARCH relating to CHILDREN

Bulletin 25

Current and recently completed studies on

- GROWTH and DEVELOPMENT
- PERSONALITY and ADJUSTMENT
- EDUCATIONAL PROCESS
- EXCEPTIONAL CHILDREN
- THE CHILD in the FAMILY
- SOCIOECONOMIC and CULTURAL FACTORS
- SOCIAL SERVICES
- HEALTH SERVICES

April-December 1969

CLEARINGHOUSE FOR RESEARCH IN CHILD LIFE

FOREWORD

This Bulletin, like previous issues, includes reports of research in progress or recently completed. With the exception of the long-term research, it does not report again studies included in Bulletins 3 through 24 even though they may still be continuing. This issue, therefore, does not reflect all research relating to children in a given period but only that which was first reported to the Clearinghouse April through December 1969.

The Clearinghouse has only such information about the studies as the abstracts provide. Publication references and plans are given by some of the investigators but the Clearinghouse does not maintain bibliographic information on published reports of the studies. The reader who wishes to obtain further details about any of the projects reported should check professional journals in the appropriate field or write directly to the investigator.

For the Clearinghouse, I wish to thank those who have submitted reports on their own projects and those who have told us of other studies, and to acknowledge the valuable assistance of the Science Information Exchange, and the foundations which provide us with information about their research grants.

Jule M Sugarman

Jule M. Sugarman
Acting Director, Office of Child Development

NOTE: Within the U. S. Department of Health, Education, and Welfare there has been established, in the Secretary's Office, the Office of Child Development. The Children's Bureau, formerly under the Social and Rehabilitation Service, has been transferred to the new Office of Child Development, and the Head Start program, formerly in the Office of Economic Opportunity, has been delegated to this Office.

Studies supported by the Children's Bureau's Maternal and Child Health and Crippled Children's Services Research Grants program are now being administered by the Maternal and Child Health Service of the Health Services and Mental Health Administration. Announcement will be made later concerning the auspices of the Bureau's Child Welfare Research and Demonstration Grants program.

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To Research Investigators:

This publication is only as complete as you are willing to make it. Page 131 is a form for letting us know of other investigators who are working in the field. Page 128 is a form for reporting your own current research. Please let us hear from you.

Clearinghouse for Research in Child Life

LONG-TERM RESEARCH

Note: The reports in this section concern research programs which are more or less continuous.

25-AA-1 THE CHILD RESEARCH COUNCIL

Purpose: To conduct life-span investigations of growth, development, and adaptation of healthy volunteer subjects.
Subjects: 215 healthy middle and upper-middle class volunteers from Denver, ages 1 year to 48 years.
Methods: Current operation is limited to analysis of data collected since 1930 in the areas of physical growth, roentgenographic studies of growth, nutritional intakes, health records, and selected areas of biochemical and functional development. Data are being organized on electronic tape for computer analysis. Projected activity in the coming year includes analysis and publication.
Duration: 1930-continuing.
Investigator(s): Robert W. McCammon, M.D., Director, Virginia A. Beal, M.P.H., Nutritionist, Edith Boyd, M.D., Pediatrician, Charlotte Hansman, M.D., Anthropometrist and Assistant in Roentgenology, Marion M. Maresh, M.D., Roentgenologist, Aldula Meyers, Ph.D., Hematologist, and Virginia E. Trevorrow, Ph.D., Biochemist, Child Research Council, 4200 E. Ninth Ave., Denver, Colo. 80220.
Cooperating group(s): University of Colorado Medical Center; Commonwealth Fund; National Dairy Council; Gerber Products Co.; Nutrition Foundation; Phipps Foundation; National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Reprint lists available from Dr. McCammon.

25-AA-2 ANALYSIS AND EVALUATION OF DATA FROM THE LONGITUDINAL STUDY OF CHILD HEALTH AND DEVELOPMENT BASED UPON MULTIDISCIPLINE AND PERIODIC OBSERVATIONS OF INDIVIDUAL CHILDREN FROM BIRTH TO 18 YEARS

Duration: 1930-continuing.
Investigator(s): Research has been discontinued, but the analyses of data and preparation of reports are being continued by individuals under the direction of Robert B. Reed, Ph.D., Professor and Head, Department of Biostatistics, Harvard School of Public Health, Boston, Mass. 02115.

25-AA-3 LONGITUDINAL STUDY OF CHILD GROWTH AND DEVELOPMENT

Purpose: Program consists of study of adult personality, adjustment, and aging processes of individuals whose health, growth, personality development, and environment have been studied since birth. It included a study of the aging processes of their parents in relation to physical and biochemical measures made earlier. It will include studies of: parental childrearing attitudes and practices of two generations in the same families; constancy of autonomic response patterns to stress from childhood to young adulthood and their relationship to psychosomatic disorders in adulthood; blood lipids in relationship to body composition and change in composition.
Investigator(s): Lester W. Sontag, M.D., Director, Fels Research Institute for the Study of Human Development, Antioch College, Yellow Springs, Ohio 45387.
Cooperating group(s): Public Health Service, U. S. Department of Health, Education, and Welfare.

25-AA-4 LONGITUDINAL CROSS-CULTURAL STUDY OF HUMAN DEVELOPMENT

Purpose: To observe the long-term effects of environment upon growth and health, that is, the influence of environmental factors upon physical and mental development, and the elucidation of their mode of action and interaction with genetic endowment.
Subjects: Several hundred males followed from prepuberty, all with four grandparents from the same limited geographical zone of southern Italy but now living in the markedly different cultures of Boston, Rome, and Palermo; other groups of 100 girls and several hundred boys in Florence, Italy and 200 girls in Boston.
Methods: Repeated medical, anthropometric, and psychological examinations together with family interviews (with evaluation of childrearing practices), nutrition, and sociocultural data.
Findings: Reported in numerous articles in American and European journals. Current work under analysis includes cross-cultural study of moral values, studies of biological age and its estimation, estimation of socioeconomic status across cultures, blood groups and temperament, and changing hemoglobin values in adolescent males. Work involving further and continuing data collection includes prediction of growth variables, cross-cultural study of creativity and its environmental determinants, a study of left-handed subjects in the relatively "permissive" and "intolerant" cultures of the United States and Italy, and an analysis of menstrual symptoms in both cultures.
Duration: 1956-1968.
Investigator(s): Harben Boutourline Young, M.D., Research Associate in Human Growth and Development, Harvard School of Public Health, Boston, Mass. 02115; present address: Harvard Florence Research Project, Via Venezia 10, Florence, Italy.

Cooperating group(s): Grant Foundation; Wenner Gren Foundation; Olivetti Corporation; Universities of Florence, Rome, and Palermo.
Publications: Perceptual and Motor Skills 23:35-40, 1966; Bulletin of the International Epidemiological Association 12:1936, 1965; American Journal of Diseases of Children 106:568-577, 1963; papers and other articles; one book planned, another possible.

25-AA-5 BIOLOGIC AND ENVIRONMENTAL FACTORS IN CHILD DEVELOPMENT

Purpose: To investigate the relationship of biologic, genetic, and environmental factors in the parents--including events during pregnancy, labor, and delivery--to normal and abnormal development of offspring. Expected byproducts of investigation are relationships of these factors to pregnancy wastage in the form of early fetal death, perinatal mortality, infant and childhood mortality, and estimates of incidence of different types of abnormalities. In addition, detailed growth curves for children from birth to six years of age will be derived on a longitudinal basis, as will estimates of illnesses and injuries in infancy and the preschool child.
Subjects: Members of the Kaiser Foundation Health Plan--a prepaid medical care program--who reside in the San Francisco-East Bay area.
Methods: Study is of a prospective, longitudinal type for both mother and child. Observations are made on the gravidas in the Department of Obstetrics and Gynecology, and on the children in the Pediatric Department, and are supplemented by special interviews and laboratory examinations. Physicians' observations are systematized and made more uniform. Special efforts are made to obtain information on members of study who do not return to the plan for medical care.
Duration: July 1959-indefinite.
Investigator(s): Jacob Yerushalmy, Ph.D., Professor of Biostatistics, University of California School of Public Health, Berkeley; Stephen Thomas, M.D., Director, Department of Obstetrics and Gynecology, and Edgar Schoen, M.D., Director, Department of Pediatrics, Kaiser Foundation Hospital, Oakland, Calif.
Cooperating group(s): Permanente Medical Group; Kaiser Foundation Research Institute.
Publications: Journal of Pediatrics 71:2:164-172, August 1967; Pediatrics 39:940-941, 1967; American Journal of Obstetrics and Gynecology 88:4:505-518, February 15, 1964; other articles.

25-AA-6 THE BERKELEY, CALIFORNIA GROWTH STUDY

Purpose: A study of the mental and physical growth of normally healthy persons from birth in 1928-1929 to the present.
Subjects: 60 full-term, healthy newborns, born in Berkeley, Calif. hospitals of white, English-speaking parents, if parents were interested--a somewhat selected above-average group; 140 offspring of these subjects, age range from a few months to about 20 years, seen irregularly, but same data (appropriate for age) collected that were collected for their parents.
Methods: Tests of mental and motor development; pediatric examination; interviews at frequent intervals during growth beginning in first week of life. At all visits, inquiries made concerning current health and recent illnesses. Anthropometrics, body photographs, and skeletal X-rays taken at most ages. Socioeconomic data available. Adult records include mental tests, physical examinations, anthropometrics, and current

status interview. Studies of physical aspects of growth include analyses comparing health histories with physical growth and with skeletal maturation. Some parent-child relations in susceptibility to illness could be studied. Emotional and other personality variables studied for consistency, and in various interrelations with maternal behavior in infancy, birth histories, socioeconomic status, intellectual and physical growth.
Duration: 1955-continuing.
Investigator(s): Nancy Bayley, Ph.D., and Dorothy H. Eichorn, Ph.D., Research Psychologists, Institute of Human Development, University of California, Berkeley, Calif. 94720.
Publications: American Psychologist 23:1:1-17, 1968; Monograph of the Society for Research in Child Development 28, 1963; Growth Diagnosis. Chicago: University of Chicago Press, 1959; others.

25-AA-7 MEDFORD, OREGON BOYS' GROWTH STUDY

Purpose: To construct physical and motor growth curves of boys 7 to 18 years of age; to relate physical and motor traits to physiological maturity, physique type, sociopersonal adjustment, interests, and scholastic aptitude and achievement.
Subjects: Cross-sectional samples: 40 boys at each age 9 through 15 years; longitudinal samples: 100 boys at ages 7, 9, 12, and 15 years; tested annually to 18 years.
Methods: Construction of growth and growth acceleration needs; extent of individual differences; contrasting extreme groups on various tests; zero-order, partial, and multiple correlations; factor analysis; multiple regression equations; special studies of athletes; and profile charts of outstanding athletes.
Findings: Contained in 62 master's and doctor's theses to date.
Duration: October 1955-June 1968.
Investigator(s): H. Harrison Clarke, Ed.D., Research Professor of Physical Education, University of Oregon School of Health, Physical Education, and Recreation, Eugene, Ore. 97403.
Cooperating group(s): Oregon State Education Department; Southern Oregon College; Office of Scientific and Scholarly Affairs, University of Oregon Graduate School; Athletic Institute, Chicago.
Publications: Series of brochures planned, to be published by Prentice-Hall, Inc., Englewood Cliffs, N. J.

25-AA-8 GROWTH OF PSYCHOPHYSIOLOGICAL PATTERNS IN INFANCY

Purpose: To investigate the origins and course of development of individual differences in neonates. (See Research Relating to Children, Bull. No. 21-AA-8.)
Subjects: Normal, healthy full-term babies, 2 to 5 days old, born at Bronx Municipal Hospital Center.
Methods: A neonatal behavioral profile established in prior studies in this laboratory will be used. This profile includes behavioral and heart rate ratings on excitation, soothing, feeding, sleep, and non-stimulus periods of observation. Neonates will be followed at two weeks, and one, two, three, and four months of age to measure the stability of early-appearing traits and their relation to later behaviors.
Findings: Data will be analyzed with respect to stability of early-appearing behaviors and relationship between neonatal behavior and maternal and birth history.

Duration: 1966-continuing.
Investigator(s): Wagner H. Bridger, M.D., Associate Professor of Psychiatry, and Beverly Birns, Ph.D., Assistant Professor of Psychology, Albert Einstein College of Medicine, Yeshiva University, Bronx, N. Y. 10461.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: In Early Experience and Behavior; Psychobiology of Development, Grant Newton and Seymour Levine (Eds.). Springfield, Ill.: Charles C. Thomas, 1968, $28.50; Psychosomatic Medicine 28:316, 1966; Child Development, September 1965; others.

25-AA-9 PHILADELPHIA CENTER FOR RESEARCH IN CHILD GROWTH

Purpose: To develop standards and norms of physical growth and development of normal, healthy children of the Philadelphia area.
Subjects: White and Negro children, male and female. Data are longitudinal (usually annual), based on two major samples: birth to 7 years, and 7 to 17 years. Cephalometric (measurement of head, face, jaws) and somatometric (trunk, limbs) standards of second group (white, Negro) are already available; those of first group (white only) will be within the year.
Methods: Cephalometry and somatometry. Measurements are linear, transverse, sagittal, circumferential, skin thickness (via skin calipers), X-ray films of left hand (routinely) and of upper arm or lower leg (reduced number of cases); also of head and face in norma laterales sinistra and norma faciales (roentgenographic cephalometry). Dental models are taken in most cases. Histories secured are: (1) familial in terms of ethnic background and socioeconomic status; (2) medical (illness) and dental (occlusion, dental stage, oral habits); (3) genetic, in terms of the familial occurrence of trait(s) being considered. All data may be referred to several age categories: (1) chronological age (C.A.); (2) dental or eruptive age (D.A.); (3) skeletal or biological age (S.A.). All data have been put on microfilm, coded, and stored in computer memory. (1) School Series: initially based on 600 normal, healthy white school children from five Philadelphia schools, 6 to 12 years of age (ultimately followed to 22 schools). These children have provided the core data upon which our 7- to 17-year standards are based. (2) Negro American Series: based on the semiannual study of some 500 elementary school children. These children have provided the core data upon which our 7- to 17-year standards are based. (3) Orthodontic Series: now numbering some 2,700 children from the Orthodontic Clinics of the University of Pennsylvania (2,200) and the Children's Hospital (500). All of these children have been followed through their treatment course (two to four years, average). On about 10 percent of them there are posttreatment followup studies. (4) Cleft Palate Series: in cooperation with the Children's Hospital. These data are, for the most part, single preoperative roentgenographic cephalometric, plus selected somatometry (H, W, shoulder B, chest B and D, hip B, etc.). There are some 600 such records; in about 10 percent there are followup data. (5) Cooley's Anemia Series: based on some 120 children. Measurements, X-ray films, familio-genetic histories, and therapeutic treatment. Data are longitudinal, on an annual basis. (6) Endocrine and Chromosomal Series: seen on a referral basis from Children's Hospital. Data are followup, though sporadically and irregularly so.
Investigator(s): Wilton M. Krogman, Ph.D., LL.D., Director, Philadelphia Center for Research in Child Growth, and Professor and Chairman, and Francis E. Johnston, Ph.D., Assistant Director, The Center, and Associate Professor of Anthropology, Department of Physical Anthropology; Geoffrey

F. Walker, B.D.S., Director of the Philadelphia Center for Craniofacial Biology, and Research Associate in Orthodontics, Department of Orthodontics, Division of Graduate Medicine, University of Pennsylvania, Philadelphia, Pa. 19146.
Cooperating group(s): Children's Hospital of Philadelphia; Philadelphia Board of Public Education; School System, Archdiocese of Philadelphia; National Institute of Dental Research and National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-AA-10 GROWTH RESEARCH UNIT

Purpose: To gain insight into critical factors influencing growth patterns of all children by observing the growth and development of deviates, especially those with pathological diagnoses which have been medically documented.
Subjects: Children with congenital cardiac lesions, and children and adolescents with significant deviations of physical, neurological, and behavioral development.
Methods: Standard anthropometric measures.
Duration: 1929-1969.
Investigator(s): Leona M. Bayer, M.D., Cochairman, Youth Clinic, Research Associate, Heart Center, Pacific Medical Center, San Francisco 94115, and Adjunct Clinical Associate Professor of Medicine, Stanford University, Stanford 94305; Ernst Wolff, M.D., Pediatrician-Coordinator, Service for Developmentally Handicapped Children; and Saul J. Robinson, M.D., Clinical Professor of Pediatrics, University of California Medical Center, San Francisco, Calif. 94122.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: American Journal of Diseases of Children 117:564-572, May 1969; Child Development 40:1:315-346, March 1969; Journal of Pediatrics 62:5:631-645, May 1963; Journal of Clinical Endocrinology and Metabolism 22:1127-1129, November 1962.

25-AA-11 LONGITUDINAL STUDY OF DENTOFACIAL, SKELETAL, PHYSICAL GROWTH, AND NUTRITION OF CHILDREN

Purpose: To study the dentofacial growth of children, standards of nutrition, caries increment as related to nutrition, assessment and skeletal age as related to facial growth, variations in physique and its effect on dentofacial growth. Twins are also being studied to determine heritable traits.
Subjects: 400 children, including 40 pairs of twins, ages 3 to 18 years, who have been observed for periods of 3 to 10 years.
Methods: Cephalograms, hand, wrist, and calf X-rays, intraoral X-rays, study casts, anthropometric measurements, photographs, oral examination, and one-week food diary. Children are examined every six months until 14 years of age.
Duration: 1950-continuing.
Investigator(s): Bhim S. Savara, D.M.D., M.S., Professor and Chairman, Child Study Clinic, University of Oregon Dental School, Portland, Ore. 97201.
Cooperating group(s): Oregon State Board of Dental Examiners; Tektronix Foundation, Inc.; Medical Research Foundation of Oregon; National Dairy Council; National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Growth 31, 1967; Human Biology, May 1967; Archives of Oral Biology 12, 1967; others.

25-AA-12 RADIOGRAPHIC STANDARDS OF REFERENCE FOR SKELETAL DEVELOPMENT OF CHILDREN. REVISIONS AND NEW STANDARDS

Purpose: To develop radiographic standards of reference for skeletal development of children. (See Research Relating to Children, Bull. No. 21-AA-12.)
Methods: Between 1937 and 1962 series of films of approximately 1,000 healthy Cleveland children were used to prepare standards for the hand and wrist, the knee, and the foot and ankle. These standards display a modal (moderate) rate of development of each bone in these three regions of the growing skeleton as they appear at regular intervals between birth and adulthood.
Investigator(s): S. Idell Pyle, Ph.D., Research Associate in Anatomy, Case Western Reserve University School of Medicine, Cleveland, Ohio 44106; William W. Greulich, Ph.D., Research Biologist, National Institute of Child Health and Human Development, Bethesda, Md. 20014, and staff of the National Center for Health Statistics involved in the National Health Survey, Public Health Service, U. S. Department of Health, Education, and Welfare, Washington, D. C. 20201.
Cooperating group(s): Bolton Study (Cleveland); Department of Maternal and Child Health, Harvard University School of Public Health.
Publications: A Radiographic Standard of Reference for the Growing Knee, S. Idell Pyle and N. L. Hoerr. Springfield, Ill.: Charles C. Thomas, 1969; in 1965 a special standard of reference for the hand and wrist of children ages 5 to 17 was selected from the standard plates included in the 1959 Greulich and Pyle atlas for use in conjunction with the National Health Survey of American Children, unpublished.

25-AA-13 COLLABORATIVE STUDIES IN CEREBRAL PALSY AND OTHER NEUROLOGICAL AND SENSORY DISORDERS OF INFANCY AND CHILDHOOD

Purpose: To investigate factors and conditions affecting parents: (1) conditions of pregnancy itself, such as infections, trauma, bleeding, drugs, and progress of labor; (2) environmental factors influencing mother, such as social and economic conditions, emotional stress, and medical care; (3) biological factors in parents, such as age, parity, medical and reproductive history, and immunologic characteristics; (4) genetic background of parents. To investigate in the offspring: disorders of the nervous system of all products of conception at time of delivery or appearing during infancy or early childhood, including cerebral palsy, mental subnormality, behavioral disorders, etc. A detailed investigation of the independent variables will be directed toward the reevaluation of the effect of factors already suspected, the elucidation of the mechanism through which these factors are operative, and the discovery of factors neither presently known nor suspected.
Subjects: Approximately 8,000 live births per year from collaborating institutions for five years. Offspring followed until school age.
Methods: Analysis of pooled information collected in a uniform way in a number of medical centers throughout the country from women studied during pregnancy and from their offspring followed throughout infancy and early childhood. Intensive study of limited number of cases; less intensive study of as many damaged children and abnormal pregnancies as possible.
Duration: 1956-continuing.
Investigator(s): Heinz W. Berendes, M.D., National Institute of Neurological Diseases and Stroke, Public Health Service, U. S. Department of Health, Education, and Welfare, Bethesda, Md. 20014. Collaborating institutions: Yale University, New Haven, Conn.; Charity Hospital, New

Orleans, La.; Johns Hopkins University School of Medicine, Baltimore, Md.; Boston Lying-In Hospital, Children's Medical Center, Harvard University (Warren Anatomical Museum), Boston, Mass.; University of Minnesota Medical School, Minneapolis, Minn.; Columbia-Presbyterian Medical Center and New York Medical College, New York, N. Y.; Children's Hospital of Buffalo, Buffalo, N. Y.; University of Oregon Medical School, Portland, Ore.; Children's Hospital of Philadelphia and Pennsylvania Hospital, Philadelphia, Pa.; Brown University, Providence, R. I.; University of Tennessee Medical School, Memphis, Tenn.; Medical College of Virginia, Richmond, Va.
Publications: Bibliography available from Dr. Berendes; in Research Methodology and Needs in Perinatal Studies, Chapters 5 and 6, S. S. Chipman, A. M. Lilienfeld, B. G. Greenberg, and J. F. Donnelly (Eds.). Springfield, Ill.: Charles C. Thomas, 1966.

25-AA-14 METHODS IN CHARACTER DEVELOPMENT

Purpose: To develop more effective methods in character development in cooperation with families and character-training agencies. (Character is defined in terms of three dimensions: philosophy of values, breadth of social vision, and strength of purpose.)
Subjects: Children and families throughout the United States. These are in churches, YMCA's, and schools, and participate as individual families.
Methods: The methods of development are based on action research, in which the participants cooperate with the laboratory, using methods of coscientist research. Open-ended reports on research goals constitute the basic body of research data. An analysis of these data serves as the basis for the development of new procedures and for the scientific reports which are published concerning it.
Findings: Reports have been prepared concerning hypotheses being tested in the home and character-building agencies. Most of the findings relate to the home, learning, decisionmaking, and methods for character development, plus descriptions of age-level potentials, especially for decisionmaking.
Duration: 1935-continuing.
Investigator(s): Ernest M. Ligon, Ph.D., Director, and staff, Union College Character Research Project, 10 Nott Terrace, Schenectady, N. Y. 12308.
Cooperating group(s): Lilly Endowment, Inc.
Publications: Character Potential: A Record of Research; How to Stand Up for What You Believe, Herbert J. Detweiler. New York: Association Press, 1966; The Marriage Climate, Ernest M. Ligon and Leona J. Smith. St. Louis, Mo.: Bethany Press, 1963; others.

25-AA-15 LONGITUDINAL STUDIES OF CHILDREN WITH CRANIOFACIAL BIRTH DEFECTS

Purpose: To study the epidemiology, genetics, morphology, physiology, and postnatal development of congenitally deformed craniofacial structures.
Subjects: 2,000 subjects.
Methods: Most subjects were initially studied as infants. Procedures include roentgencephalometry and tomography, dental casts, photographs, and speech and hearing, psychosocial, and pediatric evaluations.
Duration: 1949-continuing.
Investigator(s): Samuel Pruzansky, D.D.S., Director, Center for Craniofacial Anomalies, University of Illinois Medical Center, Chicago, Ill. 60612.

Cooperating group(s): Illinois State Pediatric Institute; National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Multiple articles in journals of dentistry, medicine, public health, speech and hearing, psychology, and research; list of publications available from Dr. Pruzansky.

25-AA-16 STUDY OF INFANT TWIN PERSONALITY DEVELOPMENT

Purpose: To gain further understanding of normal personality development of identical twins, and of the interaction between environmental and constitutional factors; specifically, to define personality differences in identical twins and to find explanations for these differences.
Subjects: Infant monozygotic twins in an intact family.
Methods: When a diagnosis of multiple pregnancy is made, permission is requested of parents and obstetrician to contact the family for the study. One or two prenatal interviews are held with the parents, and a researcher is present at the delivery to make direct observations of the delivery process and the earliest postnatal period for each twin. Zygosity is determined by studies on the placenta and cord blood. Twins are observed in the pediatric nursery and given a neurological examination, which is repeated at age one. Home visits are made several times a year and involve observation of the twins, questioning of the parents about the twins' growth and development and their own reactions to the twins. Particular attention is paid to those interacting physiological and psychological features which tend toward further differentiation and those which favor the maintenance of similarity between identical twins. The way in which nongenetic constitutional factors influence the family environment as experienced by each twin will be carefully noted.
Duration: January 1967-1980.
Investigator(s): William Pollin, M.D., Chief, James Stabenau, M.D., Martin G. Allen, M.D., and Axel Hoffer, M.D., Clinical Associates, Section on Twin and Sibling Studies, Adult Psychiatry Branch, National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare, Bethesda, Md. 20014.

25-AA-17 YOUTH REPORTS

Purpose: To collect and analyze opinions and values of high school age youth.
Subjects: 250 high school students.
Methods: Students were randomly chosen, with the aid of school officials, from youth enrolled in college preparatory courses in high schools selected to give coverage of urban and suburban schools in each of 12 metropolitan areas in the United States. Each student is sent a set of short open-ended questions and asked to report on the range of opinions in his school or neighborhood group, including his own opinion or not, as he pleases. It is anticipated that the panel will be interviewed in this way three or four times per year. Replies are coded for content; analysis is both quantitative and qualitative.
Findings: The method of mail interviewing is quite successful with this group of students.
Duration: Spring 1969-continuing.
Investigator(s): Elizabeth Herzog, Ph.B., Chief, and Cecelia E. Sudia, M.A., Research Analyst, Youth and Child Studies Branch, Children's Bureau, Office of Child Development, U. S. Department of Health, Education, and Welfare, Washington, D. C. 20201.
Publications: Teenagers Discuss the "Generation Gap"--Youth Reports No. 1, 1969.

GROWTH AND DEVELOPMENT

General

25-BA-1 LONGITUDINAL STUDY OF YOUNG CHILDREN'S SOCIOMETRIC CHARACTERISTICS AND THEIR RELATIONSHIP TO OTHER PHYSICAL AND PSYCHOLOGICAL MEASURES

Purpose: To examine young children's relationships to adults and to their peers from their entrance to nursery school to the end of third grade; to relate findings to a variety of other measures available on the same children through a central data bank. (See Research Relating to Children, Bull. No. 20-BA-1 and No. 25-DB-1.)
Subjects: 120 children, mainly from professional class homes, normally heathy, with I.Q.'s ranging from 85 to 165. Children entered nursery school of the Institute of Child Study at age two from 1962 to 1967 in groups of 20.
Methods: Sociometric tests (Northway and Weld) were given fall and spring to each group. A sociometrically derived measure of children's preference for adults or children, the Birthday Test, was given annually within two weeks of each child's birthday. Measures being used by other investigators using the same group of subjects were synchronized in administration and the data coordinated in a central bank. During the last year several analyses have been made and others are in progress.
Findings: Consistency of sociometric status significantly above chance from senior nursery to grade three. Personal choices stable over six months and one year intervals from junior nursery up. Gradual decrease of preference for adults and increase of preference for peers with age. Difference in sociometric structure between apparently similar groups.
Duration: September 1962-1972.
Investigator(s): Mary L. Northway, Ph.D., Coordinator, The Bróra Centre, 245 Davenport Rd., Toronto 180, Ontario, Canada.
Cooperating group(s): Ontario Mental Health Foundation; Institute of Child Study, University of Toronto.
Publications: Education Research, Vol. II; papers presented at International Congress of Sociometry, Baden, 1968, and Canadian Psychological Association, 1969, being revised for publication; other journal articles planned.

25-BA-2 PSYCHOLOGICAL EFFECTS OF PREGNANCY AND NEONATAL HEALTH THREATS ON CHILD DEVELOPMENT

Purpose: To follow a small group of socially deprived children exposed to pre- and perinatal health threats to determine whether any psychological effects of the threat could be identified and, if so, whether there is potential in pediatric care to prevent such consequences. (See Research Relating to Children, Bull. No. 20-BA-10.)
Subjects: 67 mother-infant pairs with certain pregnancy or neonatal complications who are part of the Collaborative Study of the National Institute of Neurological Diseases and Stroke. All infants were physically and neurologically normal or had correctable anomalies.
Methods: Half of the subjects were provided with continuous care by the project pediatrician and a consulting social worker and child psychia-

trist, while the other half were free to use medical care of their own choosing. Developmental outcome of the child was independently assessed from psychological and neurological examinations and behavioral histories done in the Collaborative Study. Initial and followup interviews were used to identify concurrent and intercurrent stresses, family support, primary reaction patterns, and maternal caretaking behavior.
Findings: Maternal concern about health outcome seems to increase the likelihood of deviant behavior in children with histories of threat. Concerned mothers can be identified at the point of stress for intervention geared to their fears of loss or defect in their child. Though environmental stresses do not increase the incidence of deviations, they may obscure the physician's view of effect of maternal concern about a health threat. Provision of intensive social work services in collaboration with medical care is required if an intervention program is to reach vulnerable mother-infant pairs.
Duration: July 1964-June 1969.
Investigator(s): Henry S. Cecil, M.D., Director, William T. Grant Division of Psychological Pediatrics, L. Thomas Coleman, M.D., Staff Pediatrician, and Muriel Fondi, M.S.W., Director of Social Work, Children's Hospital; L. Isobel Rigg, M.D., Assistant Professor of Psychiatry, Jefferson Medical College Hospital, Philadelphia, Pa. 19146.
Cooperating group(s): National Institute of Neurological Diseases and Stroke, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Publication in preparation, 1969.

Physical

25-CB-1 OBESITY IN EARLY CHILDHOOD

Purpose: To determine the association between selected familial and childrearing qualities, body build, and personality characteristics of obese and nonobese preschool children in Hawaii.
Subjects: Approximately 25 obese and 25 nonobese children, ages three to five, enrolled in private nursery schools in Honolulu.
Methods: Children are physically assessed (height, weight, skinfold measurement), observed during activity periods, and interviewed, using semiprojective techniques. Parents are interviewed, and school personnel asked to provide pertinent information from their records and to complete a checklist on the children.
Duration: November 1968-June 1970.
Investigator(s): Audrey Maretzki, M.S., Assistant Professor, Department of Food and Nutritional Sciences, and Sylvia V. Schwitters, M.S., Assistant Professor, Department of Human Development, University of Hawaii, Honolulu, Hawaii 96822.
Cooperating group(s): University of Hawaii Biomedical Science Grant.
Publications: Planned for publication in early childhood education, anthropological, and applied nutrition journals.

25-CB-2 FACTORS ASSOCIATED WITH THE DEVELOPMENT OF OBESITY AND LEANNESS IN PRESCHOOL CHILDREN

Purpose: To identify the chief environmental factors associated with the development of obesity and leanness.

Subjects: Preschool children, six months to five years of age.
Methods: A pilot study was conducted in which the techniques, methods, and tools for this project were developed and tested. In this research, will examine such factors as child's food intake and activity, his body size and composition, physical growth, and the mother's beliefs and opinions regarding these factors. Information will provide a basis for practical public health programs in obesity prevention and in promotion of normal child growth.
Duration: July 1969-not reported.
Investigator(s): Ruth L. Huenemann, D.Sc., Professor of Public Health Nutrition, and Mary C. Hampton, M.S., Research Nutritionist, University of California School of Public Health, Berkeley, Calif. 94120.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-CC-1 REACTIONS OF INFANTS AND CHILDREN TO SENSORY STIMULATION

Purpose: To study the soothing and reinforcing properties of auditory, visual, and tactile stimuli. The soothing effects of rocking have received the most attention so far.
Subjects: Normal, healthy, full-term infants, ages five days to two months.
Methods: Stabilimeter scores and observers' judgments are used to assess the soothing properties of different rates and directions of rocking.
Findings: Vertical rocking is more soothing than horizontal rocking to infants of two months.
Duration: April 1968-March 1975.
Investigator(s): David R. Pederson, Ph.D., Assistant Professor of Psychology, University of Western Ontario, London, Ontario, Canada.
Cooperating group(s): Ontario Mental Health Foundation.
Publications: Paper presented at biennial meeting of the Society for Research in Child Development, 1969.

25-CE-1 STUDIES ON THE OPTIMUM USE OF LIMITED SUPPLIES OF PROTEIN IN HUMAN POPULATION

Purpose: To study the effect of maternal diet, especially the protein component, on the physical, mental, and metabolic development of offspring.
Subjects: Pregnant women with a poor diet.
Methods: Double blind study in which women are divided into groups and given different test supplements. Nitrogen balance of offspring is tested through standard procedures, and Bayley Tests are used for behavioral measurements.
Duration: 1967-1972.
Investigator(s): Bacon F. Chow, Ph.D., Professor, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. 21205.
Cooperating group(s): U. S. Naval Medical Research Unit, No. 2, and Joint Commission on Rural Reconstruction, Taiwan.
Publications: American Journal of Public Health 58:668, 1968.

25-CH-1 AN INVESTIGATION OF THE INTERRELATIONSHIP OF DEVIANT SWALLOWING, ORTHODONTIC PROBLEMS, AND SPEECH DEFECTS

Purpose: To investigate consistent diagnostic signs of deviant swallowing via electromyography; to test the efficacy of a therapeutic procedure.

Subjects: 50 children with deviant swallowing.
Methods: Problems were diagnosed through clinical signs and qualified with electromyography. Results were then tested and compared after therapy signs with a normal population.
Duration: 1965-1969.
Investigator(s): Charles P. Overstake, Ph.D. Candidate, Chairman, Evaluation Unit, Institute of Logopedics, 2400 Jardine Dr., Wichita, Kan. 67219.
Cooperating group(s): Wichita Public Schools; National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Plan to publish in American Speech and Hearing Journal and possibly an orthodontic journal; final report to Department of Health, Education, and Welfare.

25-CH-2 RHYTHM PERCEPTION AND VERBAL BEHAVIOR IN CHILDREN

Purpose: To determine relationships between rhythm perception and verbal behavior in children; to investigate influence (facilitation and/or disruption) of visual and auditory rhythm stimulation on speech patterns.
Subjects: Normal children, ages 4 to 12; selected ethnic groups (Negro, American Indian, Mexican-American); groups of speech defective children.
Methods: Following initial investigation of parameters of visual and auditory rhythm perception in children, (1) experimental induction of rhythm "schema" in children by repeated presentation of standardized rhythm patterns as background stimulation during task performance, and (2) examination of changes in efficiency in task performance (e.g., speech fluency) in response to shifts in the rhythm pattern.
Findings: Regular shifts with age in the ability to process visual, auditory, and cross-modal rhythm patterns have been observed, with cross-modal integration of rhythm patterns being achieved relatively late in the developmental span.
Duration: April 1968-continuing.
Investigator(s): D. Bruce Gardner, Ph.D., Professor of Child Psychology, and Acting Chairman, Department of Psychology, University of Denver, Denver, Colo. 80210.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Paper presented to Society for Research in Child Development, Santa Monica, March 1969.

Intellectual

25-DA-1 STUDIES OF ATTENTION IN INFANTS

Purpose: To investigate how infants process information, infant's rate of habituation to familiar input, and his need for variety and consistency; specifically, to determine how repeated presentations affect the infant's distribution of attention, and to explore ways of promoting or reducing this distribution. Results should also provide important information on the development of such cognitive processes as schema development and memory, and will determine if early attention distribution is related to subsequent cognitive development.
Methods: Auditory and visual sense modalities should determine generality

of the infant's attention distribution. Infant's rate of response decrement will be related to subsequent cognitive capacities such as language acquisition and general intelligence as measured by the Piaget and the Bayley Scales of Mental Development. Individual, sex, and developmental differences in distribution of attention to repeated patterns will be explored using a wide variety of response measures such as fixation, heart rate, and activity.
Duration: March 1969-March 1971.
Investigator(s): Michael Lewis, Ph.D., Research Psychologist, and Director, Infant Laboratories, Educational Testing Service, Princeton, N. J. 08540.
Cooperating group(s): National Science Foundation.
Publications: Child Development 40:21-31, 1969; Developmental Psychology 1:75-86, 1969; Psychonomic Science 11:3:275-276, 1968; Perceptual and Motor Skills 26:563-568, 1968.

25-DB-1 SOCIAL GROUP WORK THINKING SKILLS PROJECT

Purpose: To foster the cognitive development of young children from low income families.
Subjects: 40 children in grades one and two.
Methods: Children attend an after-school social group work program conducted in a low income suburban housing project community center and participate in games, music, arts and crafts activities designed to focus on basic thinking skills such as labeling, visual and auditory discrimination, comparisons, and categorizations.
Findings: Pre- and posttesting during one year indicated statistically significant gains by experimental over control group. Continuing yearly evaluation indicates improvement in participants.
Duration: 1964-continuing.
Investigator(s): Robert M. Sunley, M.S.W., Associate Executive Director, Family Service Association of Nassau County, 286 Old Country Rd., Mineola, N. Y. 11501.
Publications: Paper presented at American Orthopsychiatric Association Meeting, New York, 1969; American Journal of Orthopsychiatry 39:2:293-294, March 1969.

25-DB-2 COGNITIVE ASSESSMENT PROGRAM

Purpose: To study development of intellectual potential in children by means of cognitive and neurophysiological measures; to develop neurophysiological measures of applied value.
Subjects: Currently, six males and six females at each year of ages 6 to 16; eventually, longitudinal studies and studies of pathological groups.
Methods: Behavioral tests consist of standard measures and a specialized cognitive assessment battery that is run on an automated device. This automated "matching to sample" device records the nature of the task, the nature of the response, and times on punched paper tape for computer analysis. The neurophysiological measures are obtained by way of responses evoked by both sound and light. Analysis includes measures of laterality, latency, stability, and habituation.
Findings: Stability correlates strongly with age, and correlates with performance on a visual mode integration test with age held constant. Lateral asymmetry seems to correlate with intelligence around age 10, but to correlate inversely with age from ages 12 to 16.
Duration: January 1969-December 1972.

Investigator(s): Enoch Callaway, M.D., Chief of Research, George Stone, Ph.D., Research Psychologist, and Reese Jones, M.D., Research Specialist V, Langley Porter Neuropsychiatric Institute, 401 Parnassus Ave., San Francisco, Calif. 94122.
Cooperating group(s): Clinic for Specific Learning Disorders, University of California Medical Center; National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Preliminary report given at the Child Health and Development Conference on Neurophysiological Measures.

25-DB-3 EXPERIENTIAL AND INNATE FACTORS IN EARLY DEVELOPMENT

Purpose: To study the effect of maternal care variables on the cognitive development of the infant; to assess individual differences at birth in order eventually to study their effect on later development.
Subjects: Healthy neonates, two to four days old.
Methods: Data collected through movies, experimental procedures, and naturalistic observation.
Duration: 1964-continuing.
Investigator(s): Anneliese F. Korner, Ph.D., Research Associate, Department of Psychiatry, Stanford University School of Medicine, Stanford, Calif. 94305.
Cooperating group(s): National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Child Development 37:4:867-876, December 1966; 39:4:1145-1157, December 1968; in press 1969; others.

25-DB-4 DISCREPANCY IN PERFORMANCE ON FOUR COGNITIVE TESTS MANIFESTED BY NORMAL PRESCHOOL CHILDREN; RELATIONSHIP TO EARLY SCHOOL ACHIEVEMENT

Purpose: To examine individual differences in patterns of cognitive functioning among normal children in order to further understand early development of intellectual abilities important for school learning; to apply findings to current questions of nursery school programming. Current research is first part of a longitudinal study relating cognitive development to other features of early psychological development and adjustment. (See Research Relating to Children, Bull. No. 20-BA-1 and No. 25-BA-1.)
Subjects: 100 upper-middle class children attending the same nursery and elementary school, all of whom have excellent opportunities for development.
Methods: Subjects have been followed longitudinally from infancy through grade two. At age four, they were given the Binet, Leiter, Peabody, and Frostig tests, before and after kindergarten the Brenner Test of School Readiness was administered, and at the end of grades one and two, they were given the Metropolitan Achievement Test. Measures of discrepancy between the four cognitive test scores were calculated for each child and the discrepancy scores were related to achievement scores. The Binet test was rescored according to Guilford's Structure of Intelligence Operations, and discrepancy scores were calculated and correlated with other measures. Individual patterns of discrepancy were analyzed. All measures were correlated using computer analysis.
Findings: Children differ significantly from each other in the degree and form of discrepancy manifested in cognitive test performance, regardless of gross intellectual status.
Duration: Phase I: 1968-1970.

Investigator(s): Dorothy A. Millichamp, M.A., Associate Coordinator, Bróra Centre, 245 Davenport Rd., Toronto 180, Ontario, Canada.
Cooperating group(s): Ontario Mental Health Foundation; Institute of Child Study, University of Toronto, Toronto, Ontario, Canada.
Publications: Journal report anticipated for 1970.

25-DC-1 INTERFERENCE AND THE RETENTION OF ARTICULATORY RESPONSES

Purpose: To formulate and initiate a program of research in articulatory learning and retention utilizing the principles of interference theory; specifically, to determine whether proactive and extraexperimental interference can be demonstrated with speech sounds, and whether the retention of articulatory responses can be facilitated.
Subjects: Young children.
Methods: Verbal learning theories and procedures are employed and adapted for use with speech sounds. Young children learn lists of associations in which consonantal associations are altered; by studying these associations within words, an attempt is made to understand interference components of speech sound retention.
Duration: June 1969-May 1972.
Investigator(s): Harris Winitz, Ph.D., Associate Professor of Speech Science, University of Missouri, Kansas City, Mo. 64110.
Publications: Plan to publish in speech science, psychology, and child development journals.

25-DC-2 STIMULUS SELECTION AS RELATED TO CHILD DEVELOPMENT

Purpose: To test the hypothesis that learning strategies vary in children of different ages.
Subjects: Children, ages five, seven, and nine.
Methods: Observation made of the children's tendency to selectively attend to one aspect of a compound stimulus and use it as the functional (operational) stimulus.
Duration: 1968-1969.
Investigator(s): Robert L. Solso, Ph.D., Associate Professor of Psychology, Loyola University, Chicago, Ill. 60626.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-DC-3 VISUAL-AURAL MEMORY AND ITS RELATIONSHIP TO READING IN ELEMENTARY SCHOOL CHILDREN

Purpose: To determine whether different types of memory deficits are significantly related to reading problems in children.
Subjects: Pupils in grades one to five, attending special public school classes for children with learning disabilities; control group of well functioning pupils attending regular public school classes.
Methods: Children were individually administered the Visual-Aural Digit Span Test and Bender Gestalt Test Recall. Aural-oral, visual-oral, aural-written, and visual-written memory scores were compared with each other and with reading achievement scores. Data analyzed for sex, grade, and age differences.
Duration: September 1968-September 1969.
Investigator(s): Elizabeth M. Koppitz, Ph.D., Psychologist, Board of Cooperative Educational Services, Yorktown Heights, N. Y. 10598.
Publications: Probably Journal of Clinical Psychology.

25-DC-4 FRAME SIZE, FRAME CONTENT, AND CRITERION MEASURES IN AUTOINSTRUCTION AND THE PREDICTION OF LEARNER SUCCESS

Purpose: To investigate the relative effectiveness of four different frame sizes, i.e., the amount of material between elicitations of responses, in autoinstructional materials; to study the learner-centered variables of sex, age, reading comprehension, vocabulary level, intelligence, openmindedness, school motivation, interest in subject, cognitive style, and prior knowledge of subject.
Subjects: Two groups of 80 students each, randomly selected from the ninth grade at Nova High School, Fort Lauderdale, Fla.
Methods: Students in one group were given four versions of four autoinstructional programs consisting of numeric (statistics), verbal-factual (astronomy), verbal-conceptual (psychology), and verbal-numeric (computer programming) material. A Greco-Latin square design with repeated measures was employed. Criterion measures of completion time, achievement, retention, error rate, and attitudes were taken and an analysis run for each. Learner-centered variables were employed in discriminate function, multiple regression, and profile analyses with each of the criterion measures used as independent variables. Results of study were cross-validated with test results from the second group of students.
Duration: May 1968-May 1969.
Investigator(s): John M. Flynn, Ed.D., Assstant Professor, Nova University, Ft. Lauderdale, Fla. 33314.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

25-DC-5 DRUG AND COGNITION STUDIES ON CHILDREN WITH LEARNING DISABILITIES

Purpose: To define psychological, physiological, educational, and sociological factors contributing to learning problems, and to evaluate the effectiveness of stimulant and other psychoactive drugs in changing these factors. (See Research Relating to Children, Bull. No. 18-L-33.)
Subjects: Children, ages 6 to 12, with I.Q.'s above 80 and no psychotic illness, all of whom have been defined as learning problems by their teachers.
Methods: Medical and social histories and neurological and medical examinations are completed on children, as well as psychological and social work evaluations of each child and his family. Children are given tests of motor development, intellectual and academic ability, sensory and perceptual development, language skills, learning, attention, etc. Sensory evoked potentials and other EEG phenomena are recorded and rating scales completed by teachers and parents. Each child's behavior is observed and evaluated through the use of videotape recordings in controlled situations. In some cases, additional medical tests are given.
Findings: Many of the measures used have proven to be sensitive to stimulant drugs. Changes may be related to a decrease in hyperactivity and improved attention.
Duration: September 1966-August 1971.
Investigator(s): C. Keith Conners, Ph.D., Assistant Professor, Leon Eisenberg, M.D., Professor, Joseph Tecce, Ph.D., Assistant Professor, and Gerard H. Rothschild, M.A., Research Psychologist, Department of Psychiatry, Harvard University Medical School; Margaret Coleman, M.S.S.W., Department of Social Work, Massachusetts General Hospital, Boston, Mass. 02112.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Articles have appeared in Archives of General Psychiatry, Journal of Learning Disabilities, and Journal of Special Education. Additional publications planned.

25-DC-6 THE SOCIOPSYCHOLOGICAL ASPECTS OF SCHOOL FAILURE

Purpose: To determine the sociological, parental, developmental, and behavioral relationships in children failing in school.
Subjects: 472 children failing the elementary grades in Charles County, Md. schools.
Methods: An intense battery of psychoeducational tests was administered to assess a wide scatter of behaviors representing a theoretical model of the information processing behaviors related to learning. A 30-item sociological index, Weineg's House type, and a standard developmental history were given the parents.
Findings: Academic failure occurs with mental retardation or perceptual problems associated with learning disabilities. A behavioral reason existed in 98 percent of the children.
Duration: April 1968-June 1970.
Investigator(s): David A. Sabatino, Ph.D., Associate Professor of School Psychology, Pennsylvania State University, State College, Pa. 16801.
Cooperating group(s): Maryland Department of Education.
Publications: Probably Journal of Learning Disabilities.

25-DC-7 THE LEARNING OF SELF-REWARD STANDARDS BY CHILDREN

Purpose: To examine the manner in which children acquire standards of achievement by learning to selectively administer rewards to themselves for various levels of performance; specifically, to determine maximally effective learning conditions leading to the adoption of realistic and socially approved criteria for self-reward, and to investigate variables that influence the degree to which such standards, learned on one task, are generalized to other achievement tasks.
Subjects: Children in grades two to four.
Methods: Treatment variables include modeling, direct instruction, variations in the value of available self-rewards, and variations in the structure of the rules presented to the subject. A variety of experimental games serves as the task, and the dependent measure is usually the degree to which children adhere to or violate a stated rule for the self-administration of reward when they perform alone.
Findings: Preliminary findings indicate that the verbal structuring of a rule increases the probability that it will be adopted, that stated rules which are not reinforced by example are unlikely to be of much efficacy, and that incentive to deviate plays a major role in rule adherence.
Duration: June 1968-August 1970.
Investigator(s): Robert M. Liebert, Ph.D., Senior Investigator, Fels Research Institute for the Study of Human Development, Antioch College, Yellow Springs, Ohio 45387.
Cooperating group(s): National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Published material and reports in prepublication form available from Dr. Liebert.

25-DC-8 LEARNING AND TRANSFER IN NORMAL AND RETARDED CHILDREN

Purpose: To investigate the variables which control transfer of training, along with special training procedures.
Subjects: Normal preschool and grade school children; moderately retarded children with M.A.'s ranging from three to eight.

Methods: Discrimination learning format.
Duration: December 1968-November 1971.
Investigator(s): Joseph C. Campione, Ph.D., Assistant Professor of Psychology, University of Washington, Seattle, Wash. 98105.
Cooperating group(s): Seattle and Highline, Wash. school systems; National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Publication planned in psychology journals.

25-DC-9 REDINTEGRATIVE MEMORY

Purpose: To examine redintegrative memory for different types of material; specifically, to examine factors that produce units and to compare memory for unitized and nonunitized material. Redintegrative memory is defined as that type in which the parts of a display are integrated into a single unit and each part tends to reinstate the whole.
Subjects: Children, ages three to six; college students.
Methods: After the child is shown a scene containing three or four objects, he names each object and they are then hidden. One object is then removed and when the remaining objects are re-exposed, the child is asked what is missing. In several studies the unity of the display is varied.
Findings: Unitized scenes are remembered far more accurately than serialized scenes. Differences cannot be explained by differences in the child's verbal descriptions, but as the child gets older, verbal descriptions of the scenes do begin to differ, particularly in the number of verbs and prepositions.
Duration: January 1969-December 1972.
Investigator(s): Leonard M. Horowitz, Ph.D., Associate Professor of Psychology, Stanford University, Stanford, Calif. 94305.
Cooperating group(s): National Science Foundation; National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Articles to appear in Journal of Experimental Child Psychology and Psychological Review; additional articles to be submitted to journals of experimental psychology.

25-DC-10 PROBLEMS IN MATURATION AND LEARNING IN THE YOUNG CHILD

Purpose: To follow the intellectual, perceptuomotor, conceptual, and affective-social functioning of the child, and to correlate these variables with patterns of achievement and adjustment; specifically, to test the hypothesis that single deficits create learning failures in only a small number of children, while the majority of learning failures result from the interaction of several factors.
Subjects: 106 kindergarten children in 1964 and 100 in 1967 from a middle class white English-speaking neighborhood, with I.Q.'s of less than 80 and/or gross neurological or physical illnesses or deficits.
Methods: Comprehensive batteries of tests are given annually throughout elementary school to establish functioning of the child. Cognitive operations are measured by Piaget tests dealing with the development of concrete logic operations; socio-affective operations are measured by objective tests and semistructured psychiatric home interviews; achievement is measured by objective tests and teacher evaluation.
Findings: Only two to four percent of "normal" children present marked single deficits interfering with school learning. Psychiatric pathology

as such has little effect on school achievement, but when correlated with high intelligence it results in very high achievement, while its correlation with low intelligence results in failure. In the child with average ability it is the personality organization (and not the presence or absence of psychiatric pathology), as well as certain particularities of the cognitive structure, that determines the establishment of learning and achievement patterns. Data processing also justified the additional conclusions that (1) variability of test measures in individual children at kindergarten level is not as great as currently hypothesized; (2) achievement in grades one to three can be predicted from kindergarten scores with a fair degree of confidence; (3) certain personality traits such as emotional stability, independence, and abstract thinking occur in a significantly higher rate among high achievers as compared to lower achievers; and (4) there is evidence that certain types of neurotic adaptation in early childhood may have short- or long-term effects in the movement from preoperational (Piaget) thought to operational logical-causal thinking.
Duration: Fall 1964-continuing.
Investigator(s): Eva P. Lester, M.D., Director, Children's Service, Allan Memorial Institute, and Associate Professor, and Stephanie Dudek, Ph.D., Assistant Professor, Department of Psychiatry, McGill University Medical School, and Assistant Professor, Department of Psychology, University of Montreal, Montreal, Quebec, Canada.
Cooperating group(s): Protestant School Board of Greater Montreal; Medical Research Council of Canada.
Publications: Perceptual and Motor Skills 28:351-362, 1969; American Journal of Orthopsychiatry 38:153-160, 1968; Journal of the Canadian Psychiatric Association 13:335-340, 1967 and in press, 1969; others.

25-DD-1 SEASON OF BIRTH AND INTELLIGENCE

Purpose: To determine the relationship between season of birth and intelligence in a population of neurologically impaired children.
Subjects: 120 children with neurological impairments, average age 7.93 and a mean I.Q. of 73.68.
Methods: Each child received an individual psychological evaluation. Season of birth was obtained from hospital records, and temperature and infant mortality data from government publications.
Findings: Summer-born children exhibited significantly higher I.Q.'s than those born in the winter. Also, there was a curvilinear relationship between I.Q. and temperature above 50 degrees.
Duration: December 1968-August 1969.
Investigator(s): F. William Black, Ph.D. Candidate, Chief Psychologist, Kennedy Memorial Hospital, 50 Warren St., Brighton 02135; and Colin Martindale, Ph.D. Candidate, Harvard University, Cambridge, Mass. 02138.
Publications: Preliminary paper submitted for publication in a psychological journal.

25-DD-2 LSD AND INTELLIGENCE: AN EXPLORATORY STUDY

Purpose: To explore an apparent relationship between LSD usage and low scores on the arithmetic and digit span subtests of the Wechsler Intelligence Tests.
Subjects: Seven LSD users and seven nonusers, all ages 16 and 17.
Methods: Studied WAIS records of 16- and 17-year-old juveniles detained in Johnson County Juvenile Hall who were either known to be LSD users or

believed not to have used LSD. Difference scores were derived for each individual by subtracting the mean of his scaled scores on the arithmetic and digit span subtests from the mean of his scaled scores on the information, comprehension, similarities, and vocabulary subtests.
Findings: Far greater differences have been found in the LSD user group than in the nonuser group. The two groups differ at the .005 level by t test. LSD users all scored lower on the arithmetic and digit span subtests. Four nonusers scored higher.
Duration: January 1969-January 1970.
Investigator(s): D. F. Duncan, A.S., Supervisor, Johnson County Juvenile Hall, 905 W. Spruce, Olathe, Kan. 66061.
Publications: Probably a brief report in Psychopharmacology Bulletin.

25-DD-3 FACTORS INFLUENCING THE INTELLECTUAL DEVELOPMENT OF YOUNG CHILDREN

Purpose: To determine the mediators of social class differences in the intelligence of young children.
Subjects: Children of mature birthweight born in London, Ontario, Canada in 1959 and 1960.
Methods: Multivariate analysis of the effect upon I.Q. at age five of many variables, mainly environmental, during child's preschool life.
Duration: April 1968-June 1970.
Investigator(s): Carol Buck, M.D., Ph.D., D.P.H., Professor and Chairman, Department of Community Medicine, University of Western Ontario School of Medicine, London, Ontario, Canada.
Cooperating group(s): Ontario Mental Health Foundation.

25-DE-1 ATTENTION AND MEMORY IN CONCEPT LEARNING AS A FUNCTION OF TASK COMPLEXITY AND AGE

Purpose: To investigate the effectiveness and interrelatedness of experimental manipulations linked to the memory and attentional requirements of concept learning tasks; to study the relationship of these manipulations to variations in task complexity, their effectiveness on performance of subjects of different educational grade levels, and the role of these processes with adolescents of both sexes.
Subjects: 180 males, four-year-old preschoolers to grade nine, and 45 females, grades seven through nine.
Methods: Children in four grade level groups from preschool through grade nine were given a concept identification task in a 4x3x3 factorial design in which there were three levels of stimulus complexity and three types of cue availability conditions. A specific past instance cue condition, with the past correct instance remaining visible for the subject, represented the "memory" cue; a general focusing cue condition, in which subjects were shown cards depicting the relevant stimulus attributes, represented the "attention" cue; and a condition in which no cues were available provided the control.
Findings: "Attention" and "memory" cue manipulations were found to be closely interrelated, with both cues improving performance at all but the lowest complexity levels. Preschoolers performed best with the specific instance cue, and older subjects, with the general focusing cue. Also, sex differences occurred in the oldest group.
Duration: May 1968-May 1969.
Investigator(s): Elizabeth A. Rasmussen, Ph.D., Psychology Trainee, and Vladimir Pishkin, Ph.D., Chief Research Psychologist, Veterans Administration Hospital, Oklahoma City, Okla. 73104.
Publications: In preparation for publication in psychological journals.

25-DE-2 DEVELOPMENT OF COLOR CONCEPTS AND ATTITUDES

Purpose: To investigate the role of certain factors in the original learning and subsequent development of racial attitudes, with particular attention given to the possible influence of the custom of designating racial groups by color names.
Subjects: Preschool children, Caucasian and Negro.
Methods: Racial attitude is assessed by procedures previously developed (see Educational and Psychological Measurement 27:671-689, 1967), and attitude modification is being studied via operant conditioning methods.
Findings: Racial attitude is being learned in the preschool years but is modifiable by laboratory learning methods.
Duration: 1964-continuing.
Investigator(s): John E. Williams, Ph.D., Professor of Psychology, Wake Forest University, Winston-Salem, N. C. 27109.
Cooperating group(s): National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Journal of Experimental Research in Personality, in press, 1969; Child Development 40:737-750, 1969.

25-DE-3 EXTENSIONS AND TESTS OF A MODEL FOR CONCEPT LEARNING

Purpose: To study children's concept of number, to test mathematical models of choice behavior, and to evaluate Piaget's theory on development of transitive inference.
Subjects: 48 preschool children, ages four to six, enrolled at University Elementary School, Los Angeles, most of whom have middle class, educated parents.
Methods: Prior to their assignment to one of two training conditions, half the children were given preliminary experience on counting (cardination) and questioning of relative amounts (ordination). Half the subjects were then assigned to the absolute condition in which they learned to associate numbers to colors in paired-associate fashion; remaining subjects were assigned to a relative condition in which they learned to pick the color of a pair which led to more rewards.
Findings: Counting facilitated learning of absolute numerical values, although subjects were transitive in choice regardless of training. Children in the relative condition with no counting experience were the least successful learners. A model (Estes scanning model) which assumes that subjects predict values and choose stimuli with the highest value fits data perfectly. Since this sort of transitivity can be found in monkeys, retardates, children, and adults, the Piaget assertion of it as a developmental construct is to be questioned.
Duration: Spring-Fall 1969.
Investigator(s): Thomas R. Trabasso, Ph.D., Professor of Psychology, Princeton University, Princeton, N. J. 08540; Morton P. Friedman, Ph.D., Associate Professor of Psychology, University of California, Los Angeles 90024, and Susan Hoffman, B.S., Graduate Student, Department of Psychology, Stanford University, Stanford, Calif. 94305.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: To be submitted to Journal of Experimental Child Psychology.

25-DE-4 CONCEPTUALIZATION AND LINGUISTIC EXPRESSION OF RELATIONSHIPS

Purpose: To study effects of subculture and social class upon the conceptualization and linguistic expression of logical, geometric shape, and spatial relationships.
Subjects: Groups of children and young adults, with ages 9, 12, 16, and 20 within each group. Cultural groups have included white and Negro Americans, white Canadians, Canadian Ojibiway Indians, upper and lower class Japanese, Chinese, and Greeks.
Methods: Groups are defined as either "symbol" or "object" manipulators according to occupation of father. Pairs of subjects are seated back to back. One member is given a geometric pattern to describe to his partner who must then construct a similar pattern with pieces of geometric shapes. Emphasis in analysis is upon form and efficiency of language used to convey the necessary information and upon concepts of form and space implied in this language.
Findings: Differences between "symbol" and "object" manipulators and age differences appear crucial, while economic differences per se seem irrelevant.
Duration: March 1965-January 1971.
Investigator(s): Sandor B. Brent, Ph.D., Associate Professor of Psychology, Wayne State University, Detroit 48202; and Evelyn W. Katz, Ph.D., Assistant Professor, Oakland Community College, Rochester, Mich.
Cooperating group(s): Kyoto University School of Education, Kyoto, Japan; U. S. Office of Economic Opportunity; National Science Foundation.
Publications: Journal articles, monograph, or small book.

25-DE-5 DEVELOPMENT OF THE PERCEPTION OF FACIAL BEAUTY

Purpose: To explore the effects and interactions of age, sex, race, and racial integration on the judgment of beauty in human faces.
Subjects: 320 Negroes and whites from racially segregated and racially integrated environments. There are 80 subjects at age levels 7, 12, 17, and 30 to 40.
Duration: April 1969-March 1970.
Investigator(s): John F. Cross, Ph.D., Assistant Professor of Psychology, and Jane P. Cross, Ph.D., Lecturer, St. Louis University, St. Louis, Mo. 63103.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Will be submitted for publication in psychological journals such as Child Development or Developmental Psychology.

25-DF-1 A COMPARATIVE STUDY OF PROBLEM-SOLVING PROCESSES RELATIVE TO THE MODELS DEVELOPED BY JEAN PIAGET AND LOYOLA UNIVERSITY

Purpose: To compare the results of using a technique developed at Loyola University Psychometric Laboratory for assessing the problem-solving process with those obtained from problems developed by Piaget for a similar purpose. Apparently similar results have been obtained with the two methods, although they were developed from different theoretical and methodological backgrounds.
Subjects: 200 students, ages 13 to 17.
Methods: Students were tested with the Loyola technique consisting of approximately 12 problems representing three levels of logical complexity and four languages (modes of presentation). Results were compared with

students' performance on Piaget's problems, a standard test of ability, and regular scholastic work. Relationships of findings on both approaches to ability and achievement are expected to make possible a cross-cultural study comparing results obtained from a Swiss sample with those obtained from a comparable sample in the Chicago area.
Duration: September 1967-August 1968.
Investigator(s): James B. Erdmann, Ph.D., Associate Professor of Medical Education, Michigan State University, E. Lansing, Mich. 48823.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Articles to be submitted to educational or psychological journals.

25-DF-2 THE DEVELOPMENT OF PROBLEM-SOLVING ABILITY

Purpose: To examine factors involved in the development of the ability to solve problems in elementary school age children; to attempt to develop training methods for improving performance of children who have difficulties understanding abstract concepts.
Subjects: Elementary school age children.
Methods: Children are presented with concept attainment problems which test the ability to recognize the concept represented by a set of stimuli. The stimuli, geometric forms and realistic figures varying in dimensions such as size, color, shape, and number, are presented sequentially to the child. He is told that some of the stimuli are examples of the concept and some are not and he is to determine what the concept is. Since he is required to state an hypothesis about the correct concept after each trial, the manner in which he solves the problems can be studied.
Duration: September 1968-April 1970.
Investigator(s): Linda S. Siegel, Ph.D., Assistant Professor of Psychiatry, McMaster University, Hamilton, Ontario, Canada.
Cooperating group(s): Medical Research Council of Canada.
Publications: To be submitted to appropriate professional journals.

25-DF-3 ANALYSIS OF DIFFERENCES IN CREATIVE ABILITY BETWEEN WHITE AND NEGRO STUDENTS, BETWEEN PUBLIC AND PAROCHIAL SCHOOL STUDENTS, BETWEEN STUDENTS OF THREE DIFFERENT GRADE LEVELS, AND BETWEEN SEXES

Purpose: To determine differences in the creative ability of Negro and Caucasian children, public and parochial school students, and students of different sex at different grade levels; to determine the adequacy of teacher identification of creative students.
Subjects: Students in grades 4, 7, and 12 from Milwaukee and Oshkosh, Wis., selected on the basis of group intelligence test scores.
Methods: 360 pupils were given the figural and verbal Torrance tests of creative thinking (Form A) and results were arranged into five groups for comparison purposes. Three comparison groups of 120 subjects each contained equal numbers of Negro and white students from public and parochial schools, but varied between groups by grade level. Remaining groups consisted of 30 students from each of the grades 4, 7, and 12 and a group of 30 male students representing each grade level. In addition, teachers were asked to select their five most and five least creative students through personal contact and observation.
Duration: June 1968-June 1969.
Investigator(s): John F. Check, Ph.D., Professor of Educational Psychology, Wisconsin State University, Oshkosh, Wis. 54901.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Journal of Educational Psychology.

25-DF-4 MODALITY ASPECTS OF MEDIATION IN CHILDREN WITH NORMAL AND WITH IMPAIRED HEARING ABILITY

Purpose: To test hypothesis that qualitative differences exist between the thinking processes of children with normal hearing and children whose hearing has been impaired since birth.
Subjects: 1,365 normal-hearing youngsters and 130 with varying degrees of hearing loss.
Methods: Three experiments were used, two of which determine the kind of imagery used to learn a paired-associate list as a function of hearing ability, the third evaluating the efficiency of the coding-recall process in normal and hearing-impaired subjects in short-term memory.
Duration: September 1967-August 1969.
Investigator(s): Doris V. Allen, Ph.D., Assistant Professor, Department of Audiology, Wayne State University, Detroit, Mich. 48202.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report to Office of Education.

25-DF-5 DEVELOPMENTAL STUDY OF PROBLEM-SOLVING STRATEGIES

Purpose: To determine the extent to which problem-solving strategies follow the developmental course proposed by Piaget, i.e., a series of stages of development that is adequately described by selected logico-mathematical systems (a mathematical group theory technique).
Subjects: Subjects ranging in age from three years to adulthood.
Methods: A variety of new, more experimentally oriented methods have been developed to be used as prototypical of the type of tasks used by Piaget in each of the domains to be investigated. In traditional terms, both descriptive and experimental learning methods are used to investigate very specific questions relating to the organization of problem-solving strategies and the transition from one type of organization (cognitive structure) to another. The various projects are designed to explicate the use of mathematical group theory with respect to the development of children's understanding of class relations, logical relations, and spatial relations.
Findings: Children's solutions to permutations problems do follow the course of development predicted by Piaget. Evidence also indicates that children's understanding of space relations and/or spatial representation also approximates that predicted.
Duration: September 1967-1973.
Investigator(s): Charles D. Smock, Ph.D., Professor of Developmental Psychology, and Associate Director, Research and Development Center in Educational Stimulation, University of Georgia, Athens, Ga. 30601.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Articles in press in Developmental Psychology, Child Development, and Perceptual and Motor Skills, 1969; others planned.

25-DG-1 PERCEPTUAL-COGNITIVE DEVELOPMENT OF PREMATURE, FULL-TERM, AND DEFECTIVE INFANTS

Purpose: To verify and extend results of previous research which has shown that both premature and full-term newborn infants can be reliably tested on visual preferences, that both groups can see and differentiate among patterned stimulus targets, and that marked and predictable changes

take place in the stimulus targets discriminated and attended to during the early months of life, the changes often relating to the age from conception rather than the age from birth. Present research attempts to distinguish abnormal responses associated with low birthweight from any facilitating effects of prematures having earlier opportunities for oculomotor practice, and to distinguish both of these conditions from the normal changes occurring at a given level of neural maturation and reflecting cognitive growth.
Subjects: Infants of varying lengths of gestation.
Methods: Children are tested for various visual capacities, pattern preferences, and responses to novelty. Cross-sectional comparisons of infants are done at equal postnatal and equal conceptional ages. A study of mongoloid infants will give a more direct indication of the value of visual preference and related tests for infant assessment and diagnosis.
Duration: May 1969-April 1972.
Investigator(s): Robert L. Fantz, Ph.D., Associate Clinical Professor, Department of Psychology, Case Western Reserve University, Cleveland, Ohio 44106.
Cooperating group(s): National Science Foundation.

25-DH-1 RELATIONSHIP BETWEEN LINGUISTIC COMPETENCE AND VOCABULARY I.Q. OF PRESCHOOL CHILDREN

Purpose: Although linguistic competence is an important component of I.Q. test performance in older children and adults, significant correlations are not usually found between I.Q. and language complexity measures in preschool children. It was assumed that the difficulty lies in the nonverbal nature of I.Q. tests for preschool children. Accordingly, the objective in this research was to use a verbal test (the Peabody Picture Vocabulary Test) of I.Q.
Subjects: 39 four-year-old children in the Laboratory School of the University of Massachusetts.
Methods: A Word Association Test consisting of 15 nouns, 15 verbs, and 15 adjectives was developed for use with four-year-olds and administered to the sample. A weighted scoring system was devised giving highest weight to paradigmatic responses (associations of same form class as stimulus word), next weighting to syntagmatic responses (response words syntactically associated with the stimulus word), next to associative responses, next to echoic ("clang") responses, and no credit for nonresponses. The PPVT was administered to the same children. Responses were analyzed by stepwise multiple and partial correlation methods.
Findings: With the full scale of the WAT an r of .65 was obtained with the PPVT, a highly significant finding. Using nouns only, an r of .55 was obtained, also statistically significant. Using stepwise analysis of components of the WAT, it was found that the full scale was most highly predictive of the PPVT scores.
Duration: September 1968-March 1969.
Investigator(s): Ellis G. Olim, Ph.D., Head, Department of Human Development, University of Massachusetts, Amherst, Mass. 01002.
Cooperating group(s): Research Council, University of Massachusetts.
Publications: Publication planned in one of the child development journals.

25-DH-2 ASPECTS OF THE ACQUISITION OF ENGLISH PHONOLOGY

Purpose: To investigate the order of acquisition and processes of development of the English consonant system, in terms of inventories of sound types, acquisition of distinctive oppositions, and constraints on cooccurrence.

Subjects: 20 to 40 children, ages one and one-half to four.
Methods: Principal methods are (a) recording, transcription, and analysis of spontaneous utterances, and (b) elicitation, recording, transcription, and analysis of imitations of nonsense material.
Duration: June 1969-September 1970.
Investigator(s): Charles A. Ferguson, Ph.D., Professor of Linguistics, and Chairman, Committee on Linguistics, Stanford University, Stanford, Calif. 94305.
Cooperating group(s): National Science Foundation.

Personality

25-EA-1 WHAT CHILDREN REPORT ABOUT BEHAVIOR

Purpose: To study the relationship between what children do and what they say they do, effects of altering their verbal reports about their behavior on that behavior, and effects of changes in others' reports on their behavior.
Subjects: Elementary school children.
Methods: The relationship between a line drawing response and a verbal report of its accuracy (a button press) is studied in a laboratory experiment in which both response and verbal report are nonvocal in topography. Verbal reports are automatically recorded, and drawing responses are continuously recorded and assessed for accuracy. Experimental contingencies for building, maintaining, and altering verbal reporting patterns are automatically presented and remotely programmed: resulting data are in the form of behavioral ratings on the two laboratory tasks of responding and reporting.
Findings: Method is applicable to the study of this particular type of verbal behavior among children with a variety of deficits, including hearing losses and retardation.
Duration: May-December 1969.
Investigator(s): Mary Mira, Ph.D., Assistant Professor of Pediatrics (Psychology) and Psychologist, Children's Rehabilitation Unit, University of Kansas Medical Center, Kansas City, Kan. 66103.
Publications: To be submitted to appropriate professional journal.

25-EA-2 THE HYPERACTIVE CHILD--VIII FOLLOWUP STUDIES

Purpose: To further clarify understanding of the outcome of hyperactivity diagnosed in early childhood with respect to emotional and intellectual functioning in later life.
Subjects: 100 teenage boys, ages 11 to 17, diagnosed hyperactive five years previously. (See Research Relating to Children, Bull. No. 21-EE-1.) All have normal intelligence and are free of epilepsy, psychosis, or cerebral palsy. Control group of normal children.
Methods: Children are studied through psychiatric, neurological, and electroencephalographic evaluations, self-rating scales, psychometric testing, and direct school observation, and are compared to controls.
Findings: In adolescence, there is a decrease in hyperactivity, but severe concentration problems continue. Group is characterized by poor school achievement.
Duration: 1967-continuing.
Investigator(s): Gabrielle Weiss, M.D., Associate Psychiatrist, The

Montreal Children's Hospital; and Virginia Douglas, Ph.D., Associate Professor of Psychology, McGill University, Montreal, Quebec, Canada.
Cooperating group(s): Canadian Department of National Health and Welfare.
Publications: Publication planned of paper presented at meeting of American Psychiatric Association, Miami, Fla., 1969.

25-EA-3 EAU CLAIRE COUNTY YOUTH STUDY--PHASE IV

Purpose: To continue long-range longitudinal analyses of children first studied in 1961 and 1962 (see Research Relating to Children, Bull. No. 14-W-4, No. 18-H-2, and No. 20-QB-1); specifically, to identify basic psychosocial factors associated with the development of low academic performance, dropouts, personal-social difficulties, delinquency, and adult crime, and to develop and cross-validate predictive systems applicable to children in grades three, six, and nine, for early prediction of law enforcement and welfare contacts, school achievement, and personal-social adjustment.
Subjects: 1,550 subjects nominated in 1961 and 1962 from third, sixth, and ninth grades in Eau Claire County as displaying either persistently approved or persistently aggressive and disruptive classroom behavior.
Methods: Continuation of statistical analyses of adjustment and achievement initiated in Phase I and carried on during Phases II and III. Phase IV will provide for the gathering of additional data on these children, still in school. This will include teacher grades, achievement scores, social adjustment ratings by teachers, behavior problems checklist, and contacts with law enforcement, welfare, and health agencies. Analyses of variance for each prediction variable will yield information concerning the strength of the relationship between the predictor and the criterion not afforded by the regression or discriminant analyses.
Findings: Classroom behavior, sex, location, achievement, and social adjustment appear to be relatable to the identification of delinquency proneness, as presented in published reports of Phases I, II, and III.
Duration: April 1969-March 1972.
Investigator(s): John R. Thurston, Ph.D., and James J. Benning, Ed.D., Professors of Psychology, Wisconsin State University, Eau Claire, Wis. 54701; and John F. Feldhusen, Ph.D., Professor of Psychology, Purdue University, Lafayette, Ind. 47907. (Reported by Mrs. Trygve M. Ager, Project Administrator, Eau Claire County Youth Study, 718 W. Clairemont Ave., Eau Claire, Wis. 54701.)
Cooperating group(s): Wisconsin Department of Health and Social Services; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Reports of Phases I, II, and III available from Eau Claire County Youth Study.

25-EA-4 SUCCESS AND FAILURE AS DETERMINANTS OF GOAL-SETTING BEHAVIOR IN MENTALLY RETARDED AND NORMAL CHILDREN

Purpose: To investigate the effects of success and failure as determinants of goal-setting behavior.
Subjects: 48 noninstitutionalized retardates of two mental age levels and 48 normal children of the same mental ages.
Methods: Subjects were assigned to one of four frequency of success groups, 100, 67, 33, or zero percent, and given nine performance trials each on a simple motor task. After each trial, children were given results, which indicated goals for subsequent performance trials. Actual

performance and willingness to continue the task without tangible reinforcement were measured. Results were interpreted in terms of the educational milieu most productive for mentally retarded and normal students.
Duration: June 1968-May 1969.
Investigator(s): Gerald E. Gruen, Ph.D., Associate Professor of Psychology, Purdue University, W. Lafayette, Ind. 47907.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: American Journal of Mental Deficiency, 1970.

25-EA-5 SEPARATION-ADAPTATION TO NURSERY SCHOOL

Purpose: To establish criteria for nursery school readiness by examining the effect of separation from mother on adaptation to nursery school, its relation to age, stage of development, maternal attitudes, previous separations, and circumstances surrounding nursery school entry; and to establish methodology to assess the above factors.
Subjects: Children between the ages of two and four and one-half; their mothers.
Methods: The exploratory and attachment behavior of the child and his reaction to being separated from mother are observed before nursery school entry. His stage of development is determined by the use of the Vineland Social Maturity Scale and doll play. Maternal attitudes are assessed from the history, a modified Marschak Interaction Schedule, and observations. These examinations are repeated periodically after nursery school entry to record the changes. The child is observed in the nursery school setting on his first, third, fifteenth, thirtieth and ninetieth day, with special reference to his exploratory and attachment behavior with and without the presence of the mother.
Duration: January 1969-January 1970.
Investigator(s): Kato Van Leeuwen, M.D., Instructor in Child Analysis, Southern California Psychoanalytic Institute, 9024 W. Olympic Blvd., Beverly Hills; and Associate Clinical Professor of Psychiatry, University of California, Los Angeles, Calif. 90024.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Journal of the Academy of Child Psychiatry.

25-EB-1 RESOLUTIONS BY TEENAGE MOTHERS OF A STATUS DILEMMA

Purpose: To study how and under what conditions pregnant girls under age 18 resolve the status dilemma posed by early motherhood, with or without marriage; specifically, to investigate the girls' own definitions of their life situations and changes in these definitions as they progress from pregnancy through childbirth.
Subjects: White and black pregnant girls from a northern California school district whose date of confinement is expected to occur before age 18 between January 1969 and March or June 1970.
Methods: Girls are identified through the schools and from marriage records in the county clerk's office as pregnant, school dropouts, or recently married. An eligibility screening process, which determines that there is no previous living child, provides some comparative information. Black and white girls are studied separately. They are interviewed during pregnancy and again within four to six months after delivery by young women matched to the girls by race. At each point in time, there is a

structured and a semistructured interview, a personality assessment test (Cattell's 16 PF) and a 100-item opinions and observations questionnaire. If there is supporting evidence that situational definitions vary within and between groups, ways will be developed for testing different types of service approaches based on different types of situational definitions and status commitments.
Duration: December 1968-November 1971.
Investigator(s): Kermit T. Wiltse, D.S.W., Associate Dean, and Louise M. Stutsman, D.S.W., Lecturer and Research Social Worker, University of California School of Social Welfare, Berkeley, Calif. 94720.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Monograph sometime in 1971.

25-EB-2 EGO DEVELOPMENT AND THE PROVENANCE OF THOUGHT

Purpose: To investigate some of the issues involved in the development and patterning of thought from a personality-motivation point of view; specifically, to study some of the contradictions involved in the concept that development of ego control structures is required before a child can introspect and employ "experimental action" or thought in pursuing his goals.
Subjects: Large sample of young children.
Methods: Children are tested over a three- to four-year period with various measures of ego structure which are related to several cognitive measures. Parental and environmental concomitants of different ego structure and cognitive patterns are assessed, with particular attention to the identification of parental teaching and communication styles associated with different kinds or stages of ego and cognitive development.
Duration: September 1968-August 1973.
Investigator(s): Jack Block, Ph.D., Professor, Department of Psychology, University of California, Berkeley, Calif. 94720.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-ED-1 DEVELOPMENT OF AGGRESSION IN CHILDREN

Subjects: Preschool and latency children.
Methods: Psychoanalytically oriented diagnostic and therapeutic procedures.
Duration: September 1967-September 1970.
Investigator(s): Gregory Rochlin, M.D., Director, Child Psychiatry Services, Massachusetts Mental Health Center, 74 Fenwood Rd., Boston, Mass. 02115.
Publications: Publication will be in child psychiatry journals, and the entire project will be included in a book.

25-EE-1 HYPNOTIC SUSCEPTIBILITY OF TWINS AND THEIR FAMILIES

Purpose: To continue a study of hypnotic susceptibility of identical and fraternal twin pairs, their siblings, and parents. (See Research Relating to Children, Bull. No. 22-EE-1.)
Subjects: Families from the Mothers of Twins Clubs who were in the original sample of 80 families and are available for retesting.

Methods: A followup retest, the Stanford Hypnotic Susceptibility Scale, Form A, will be readministered to each family member, and findings will be tested for duration over time.
Findings: There is significant correlation between the hypnotic susceptibility scores of identical twin pairs ($r = .62$, $N = 35$, $p = .001$) but essentially zero correlations for fraternal and other sibling pairs; also significant r between father and son scores.
Duration: January 1970-June 1971.
Investigator(s): Ernest R. Hilgard, Ph.D., Director, Laboratory of Hypnosis Research, and Professor of Psychology, Stanford University, Stanford, Calif. 94305. (Reported by Arlene H. Morgan, Staff Associate, Laboratory of Hypnosis Research.)
Cooperating group(s): National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Paper presented at Western Psychological Association Convention, Vancouver, June 18, 1969.

25-EF-1 EMOTIONAL REACTIONS OF YOUNG CHILDREN TO TELEVISION VIOLENCE

Purpose: To determine if children show varying amounts of transitory anxiety when viewing violent and nonviolent segments of television shows.
Subjects: 25 children, ages four and five.
Methods: Children view, in random order, four three-minute television segments consisting of cartoon violence and nonviolence and human violence and nonviolence. GSR is measured by electrodes attached to fingers, and children are interviewed following the viewing.
Duration: November 1968-continuing.
Investigator(s): D. Keith Osborn, Ph.D., Professor of Child Development, and Richard C. Endsley, Ph.D., Assistant Professor, University of Georgia, Athens, Ga. 30601.
Cooperating group(s): Field Enterprises Education Corporation.
Publications: Submitted for publication, 1969; data and results to date available on request.

25-EF-2 PATTERNS OF FEAR DEVELOPMENT DURING INFANCY

Purpose: To study the development of human fears during the first two years of life, and to relate them to cognitive levels and temperament characteristics.
Subjects: 90 infants, ages two months to two years.
Methods: Mothers provide information on individual differences in temperament through a questionnaire concerning their children's typical responses to everyday situations. Also, the child is subjected to six experimental measures of fear in the laboratory: fears of strangers, masks, separation from mother, visual cliff, sudden events, and looming stimuli.
Findings: There are curvilinear relationships between the incidence of fear responses and age, regardless of cognitive levels. Temperament characteristics such as reactivity and adaptability are significantly related to fear.
Duration: September 1968-July 1969.
Investigator(s): Sandra Scarr, Ph.D., Assistant Professor, Graduate School of Education, and Philip Salapatek, Ph.D., Assistant Professor, Department of Psychology, University of Pennsylvania, Philadelphia, Pa. 19104.
Cooperating group(s): William T. Carter Foundation; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Merrill-Palmer Quarterly, Winter 1970.

Social

25-FA-1 DEVELOPMENTAL LINES OF MATURATION

Purpose: To identify those items which are most consistently present with the occurrence of a newly acquired behavior.
Subjects: Autistic children under age 12.
Methods: The extremely restricted behavior of autistic children can be utilized to reduce the number of universally found behaviors associated with newly acquired behavior. Behavioral items selected for study are those which are present before age six, clinically feasible to observe in most autistic children under age 12, significant in theories of ego development, and inclusive of a wide profile of behavior. This list will be checked by observation and by interview of parents in a horizontal study of many children to find behaviors in common that are associated with the performance of each specific behavior included.
Findings: Preliminary study of 22 psychotic children indicates a sequence of first achieving the pattern of waving goodbye, then of giving a toy on request, and finally of pointing to a picture on request. Drawing a face was preceeded by showing an interest in toilet training and demanding to do things without help.
Duration: 1964-1971.
Investigator(s): Richard H. Smith, M.D., Psychiatrist, and Mayin L. Bing, M.A., Psychologist, Children's Unit, Metropolitan State Hospital, Waltham, Mass. 02154.
Publications: Publication planned in 1972.

25-FC-1 SOCIALIZATION OF PROBLEM BEHAVIOR IN YOUTH

Purpose: To investigate the course of development of problem behavior, including delinquency, drug use, aggression, troublemaking in school, and drinking; to determine factors which are conducive to such behavior.
Subjects: Youth, ages 12 to 22, grade seven through freshman year in college.
Methods: Personality factors (perception of limited opportunity, belief in external control, and alienation), social factors (school status, peer relationships, and parental controls), and socialization processes (exposure to models, direct instruction, incidental learning, peer initiation, and reinforcement) will be related to the occurrence and maintenance of problem behavior. Youth will be followed for four years, and resulting data will be used to chart the growth of problem behavior from age 12, when it is relatively infrequent, to age 22, by which time patterns of problem behavior may have become relatively stable.
Duration: September 1969-August 1973.
Investigator(s): Richard Jessor, Ph.D., Professor of Psychology, and Director, Research Program on Problem Behavior, Institute of Behavioral Science, University of Colorado, Boulder, Colo. 80302.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-FC-2 THE DRUG PROBLEM AMONG TEENAGERS

Purpose: To test hypotheses about the sources of the drug problem among teenagers.
Subjects: Teenage patients from three different urban areas.
Methods: Clinical observation and complete studies of the patient, including a battery of tests, results of staff summaries, etc., are being used to determine if the drug problem stems from psychosocial, psychosexual, or environmental sources, whether it is caused by a changing society, etc.
Duration: 1969-1971.
Investigator(s): Hans A. Illing, Ph.D., Staff Member, Hacker Clinic, 3621 Century Blvd., Lynwood, Calif. 90262.

25-FC-3 THE INITIATION OF CIGARETTE SMOKING: IS IT RELATED TO PARENTAL SMOKING BEHAVIOR?

Purpose: To study smoking behavior and family stability of students and their parents; to test the hypotheses that a child will imitate the smoking behavior of his same-sex parent more than that of the parent of the opposite sex, and that children from intact families will display greater imitation than those from broken homes.
Subjects: 155 male and 96 female white undergraduates, ages 18 to 23, enrolled at the University of Miami.
Methods: Students completed a questionnaire containing items relating to their parents' marital stability, and five-point scales of their own and their parents' cigarette smoking frequency, i.e., great deal-regularly, occasionally-rarely, and never. Imitation of smoking pattern was defined as the exact agreement of the child's frequency with his parents', the inverse was defined as total disagreement between the two frequencies, and inconclusive referred to the remaining patterns of parent-child smoking.
Findings: Results indicate a direct relationship between father-son smoking behaviors. Also, the family intactness variable was a highly relevant moderator of the parent-son smoking pattern. Data failed to support any conclusions on mother-daughter smoking patterns.
Investigator(s): Paul Wohlford, Ph.D., Department of Psychology, University of Miami, Coral Gables, Fla. 33124.
Publications: Journal of Consulting and Clinical Psychology, in press, 1969.

25-FC-4 EFFECTS OF HEALTH EDUCATION ON DEVELOPMENT OF SMOKING HABITS IN HIGH SCHOOL STUDENTS--A LONGITUDINAL STUDY

Purpose: To determine the most effective methods of health education, in order to discourage nonsmokers from beginning to smoke, and to encourage student smokers to stop smoking.
Subjects: 3,000-4,000 urban students in grades seven and eight.
Methods: Determination of smoking habits followed by various educational interventions, including projects, seminars, authoritative speakers, etc.; followup of smoking habits by group and individual patterns; collection of related data on age, social interests, etc.
Duration: April 1968-March 1971.
Investigator(s): F. R. Wake, Ph.D., Associate Professor of Psychology, and W. E. Walther, Ph.D., Associate Professor, Carleton University, Ottawa, Ontario, Canada.
Cooperating group(s): Department of National Health and Welfare of Canada.
Publications: Speech at health conference, Summer 1970; publication in a health journal, Summer 1970.

25-FC-5 YOUNG DRIVER FOLLOWUP STUDY

Purpose: To investigate how driving behavior changes during the first few years of driving; to determine the relationship between biographical variables and accident involvement in order to more accurately predict which young drivers are likely to be involved in accidents; to determine whether or not those persons who volunteer for behind-the-wheel driver training differ in any respect from those who do not, whether there is any difference in accident rates between these two groups, and whether such differences are due to the training or to preexisting differences.
Subjects: 14,000 persons who were 16 or 17 years old when licensed in five California counties in 1962-63.
Methods: Department of Motor Vehicle files supply information on drive test scores, accidents, convictions, types of violations, accident severity, departmental and court actions, and license status. High school records provide data on birthplace, parental occupation, years of schooling, activities, driver training status, grade point average, attendance, citizenship grades, intelligence and achievement test scores, etc. Questionnaire sent to subjects after they have been driving for about three years provides information on vehicle types driven, seat belt usage, marital status, occupation, drinking and smoking behavior, etc. Finally, personal interviews with approximately 500 high and low accident drivers yield basic biographical data and information on attitudes, personality factors, etc.
Duration: 1963-July 1970.
Investigator(s): Ronald S. Coppin, B.A., Chief of Research and Statistics, David M. Harrington, B.S., Associate Social Research Analyst, and Raymond C. Peck, M.A., Staff Research Analyst, California Department of Motor Vehicles, Sacramento, Calif. 95809.
Cooperating group(s): Bureau of Public Roads, U. S. Department of Transportation.
Publications: Plan to publish upon completion.

25-FC-6 SURVEY OF STUDENTS' SMOKING HABITS

Purpose: To determine changes in students' smoking habits over a 10-year period, the effect of educational efforts on these changes, and the relationship of children's smoking habits to parental smoking.
Subjects: 10,000 children in grades 3 to 13 in rural and urban school districts.
Methods: Children's smoking behavior is followed for 10 years through questionnaires.
Duration: January 1968-January 1970.
Investigator(s): Dr. P. F. Playfair, Medical Officer of Health, and Director, Northwestern Health Unit, 213 Main St. S., Kenora, Ontario, Canada.
Cooperating group(s): Department of National Health and Welfare of Canada.

25-FC-7 SURVEY OF STUDENTS' SMOKING HABITS

Purpose: To study smoking habits of school students.
Subjects: All students in grades 5 to 12 enrolled in the Winnipeg schools.
Methods: Students completed questionnaires concerning smoking habits and relative data such as age, sex, grade, academic achievement, and parental habits. Previous studies were conducted in 1960 and 1963.

Duration: May 1968-continuing.
Investigator(s): P. Constantinidis, M.D., Deputy Medical Officer of Health, City of Winnipeg, Manitoba, Canada. (Reported by James B. Morison, M.D., D.P.H., Deputy Minister of Health and Social Services, Government of Manitoba, 309 Legislative Bldg., Winnipeg 1.)
Cooperating group(s): Department of National Health and Welfare of Canada.
Publications: Current findings to be submitted to Canadian Medical Association Journal; findings from earlier surveys in 91:49-56, July 11, 1964; 84:1006-1012, May 6, 1961.

25-FC-8 DRUG USE--HASHISH AMONG YOUTH IN ISRAEL

Purpose: To determine existence and extent of drug problem among Israeli youth, what drugs are in use and who uses them, the attitude of the Israeli public toward drugs, and the reasons for drug use among youth.
Methods: All previous drug research done in Israel was reviewed and a theoretical background presented with a review of current literature. Interviews were held with all interested government ministries and people who work with young drug users, including police, health, education, social welfare, probation, parole, and community workers. In addition, current police statistics were reviewed.
Findings: Hashish use has spread among middle and lower class Israeli youth because of the influx of foreign volunteers who came to Israel before and after the Six Day War of June 1967, the increased contact with the Arabs in East Jerusalem, lowered prices after the War, and projection by the mass media of drug use as "fashionable".
Duration: August 1968-January 1969.
Investigator(s): Yitzchak Berman, M.A., Acting Director, and Menachem Amir, Ph.D., Director, Division of Research, Ministry of Social Welfare, Jerusalem, Israel.
Publications: Publication planned in English for summer of 1970; study will be combined with a later one which analyzed police arrest sheets of all drug offenders. Both studies are available in Hebrew from the Division of Research.

SPECIAL GROUPS OF CHILDREN

Physically Handicapped

25-GA-1 RESULTS OF GENETIC COUNSELING

Purpose: To obtain information on parents' attitudes to the existence of possible genetic diseases in their children, and the effects of genetic counseling on these attitudes.
Methods: Interview of parents seen for genetic counseling over the past 19 years.
Duration: 1966-1975.
Investigator(s): F. C. Fraser, M.D., Ph.D., Director, Department of Medical Genetics, The Montreal Children's Hospital, Montreal 108, Quebec, Canada.
Cooperating group(s): Department of National Health and Welfare of Canada.
Publications: Canadian Medical Association Journal 99:927-934, 1968.

25-GC-1 GRAPHIC CAPACITIES OF UPPER LIMB DEFICIENT CHILDREN

Purpose: To assess the graphic capacities of school aged children with upper limb malformations caused by thalidomide in order to evaluate the possibilities of their learning to write within a regular school program. (See Research Relating to Children, Bull. No. 18-T-4.)
Subjects: 24 children, ages six to seven, with limb malformations induced by thalidomide, referred to the Institute of Rehabilitation of Montreal.
Methods: Children are asked to copy 16 graphic signs (designed to reproduce handwriting movements in a decomposed fashion) in different situations with and without their prostheses: (1) on a horizontal table, and (2) on an oblique table in two positions, 20° and 40°. Children are filmed in each situation, for a minimum of 30 seconds, in order to observe their posture while writing.
Duration: October 1968-November 1969.
Investigator(s): Francine Bonnier-Tremblay, Ph.D. Candidate, Research Associate, Psychology Institute, University of Montreal, Montreal, Quebec, Canada.
Cooperating group(s): Canadian Medical Research Council.
Publications: Book planned on the general problem of the thalidomide child's development.

25-GC-2 A COMPARATIVE STUDY OF THE ARTICULATION OF CONSONANT PHONEMES BETWEEN DAY SCHOOL AND RESIDENTIAL SCHOOL DEAF STUDENTS

Purpose: To test the ability of day school as compared to residential school deaf students to articulate consonant phonemes; specifically, to test the null hypothesis that better articulation is not found in the former as compared to the latter group.
Subjects: 44 students from the Utah State School for the Deaf, half from

the day school extension (the experimental group) and half from the residential division.
Methods: After all students were given an articulation test, the total number of normal and intelligible responses were compared using chi-square and t tests.
Findings: The null hypothesis was rejected beyond the .01 level. It was concluded that the day school setting provides stimuli more capable of eliciting a higher quality of speech than the residential setting.
Duration: Completed.
Investigator(s): Alfred H. White, Jr., Ph.D. Candidate, Intern, Mott Foundation Program, 1818 Tuscola, Flint, Mich.

25-GC-3 ACTIVITY LEVEL RATINGS OF RETARDED CEREBRAL PALSIED AND NORMAL PRESCHOOL CHILDREN

Purpose: To compare the patterns of activity of cerebral palsied and normal preschool children, to find the degree of consistency through the preschool years, and the relationship of activity to developmental and intelligence level. (See Research Relating to Children, Bull. No. 20-FG-3.)
Subjects: Approximately 50 cerebral palsied infants and preschool children and 20 normal children in a university nursery school.
Methods: The cerebral palsied children are rated on a five-point scale of 10 different kinds of activity by the psychologist after observing their behavior during testing with a standard developmental scale. The normal children are rated by an assistant when they are in a similar situation in the university preschool laboratory.
Findings: Normal children show more activity, in general, than the cerebral palsied children; also, there is a noticeable difference in the pattern of their activities. Individual differences in activity patterns are shown, and a slight positive relation of activity to intelligence in infancy.
Duration: 1965-1970.
Investigator(s): Katharine M. Banham, Ph.D., Associate Professor, Emeritus, Department of Psychology, and Mary M. Huse, Ph.D., Assistant Professor of Medical Psychology, Medical Center, Duke University, Durham, N. C. 27706.
Cooperating group(s): North Carolina Cerebral Palsied Hospital; National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Publication planned in Child Development or other appropriate journal.

25-GC-4 COMPUTER ANALYSIS OF FACTORS INFLUENCING THE COURSE OF ASTHMA IN CHILDREN

Purpose: To apply the latest electronic data processing techniques in analyzing the relative importance of numerous environmental, somatic, and psychological factors related to the variability of asthma in children. (See Research Relating to Children, Bull. No. 16-T-7.)
Subjects: Children, ages 6 to 16, under care for intractable asthma in a residential center.
Methods: Clinical and laboratory variables among children are constantly monitored through continuous observation and repeated testing, including measurements of lung function, blood and allergy tests, etc. A continuous record is kept of environmental variables such as weather, air pollution, airborne allergens, diet, activity, and events having a significant psychological impact on the children's lives.

Findings: Marked heterogeneity of responses has been observed among children, and subgroups of patients have been tentatively categorized on bases of clinical, laboratory, and pharmacologic data.
Duration: September 1967-August 1970.
Investigator(s): Constantine J. Falliers, M.D., Pediatric Research Director, Children's Asthma Research Institute and Hospital, 3401 W. 19th Ave., Denver, Colo. 80204.
Cooperating group(s): John A. Hartford Foundation.
Publications: Presentations planned at several professional meetings, 1969; articles in press, 1969, or to be published early in 1970.

25-GC-5 BODY PROPORTIONS AND DERMATOGLYPHIC PATTERNS OF SIXTY CHILDREN WITH CLEFT PALATE

Purpose: To study the effects of a prenatal handicap in the growth and development of children.
Subjects: 60 children with cleft palate who reported to the Birth Defects Clinic of Stanford University Medical School for followup; 12,000 normal children matched for age and sex.
Methods: Fifteen body measurements were taken on the handicapped children and compared with the same measurements on the normal group. Hand prints were analyzed for palmer and fingertip patterns and compared with standards for normals as established by Dr. Sarah Holt and Dr. L. S. Penrose.
Findings: Sixty-five percent of children with cleft palate had hypertelorism.
Duration: Fall 1967-Winter 1969.
Investigator(s): Helen B. Pryor, M.D., Research Associate, and Luigi Luzzatti, M.D., Associate Professor, Department of Pediatrics, Stanford University Medical Center, Stanford, Calif. 94304.
Cooperating group(s): Departments of Plastic Surgery and Speech Therapy, Stanford University Medical Center.
Publications: To be submitted to a pediatric journal.

25-GC-6 SICKLE CELL ANEMIA: ITS EFFECT ON INTELLECT, ACADEMIC ACHIEVEMENT, AND PERSONALITY DEVELOPMENT

Purpose: To investigate the possible effects of sickle cell anemia on intellect, academic achievement, and personality development.
Subjects: 30 Negro adolescents, ages 15 to 18; six males and four females in each of three groups: one with well documented cases of sickle cell anemia, one with well documented cases of chronic illness, including epilepsy, diabetes, and rheumatic heart disease, and a healthy group.
Methods: Subjects in the three groups were compared for growth and physical development on the Wetzel Grid for Physical Fitness, intellect, according to the WISC and WAIS, levels of academic achievement on the Wide Range Achievement Test (Jastak, 1965), problem areas shared on the Mooney Problem Check List, and the number of and reasons for academic grades repeated.
Findings: Sickle cell subjects were significantly retarded in growth, demonstrated no significant intellectual impairment, had a greater number of problems than either of the control groups, demonstrated reduced reading, spelling, and arithmetic skill, and had repeated a greater number of grades due to illness-related absences.
Duration: January 1968-January 1969.
Investigator(s): John P. Martin, Jr., M.A., Special Education Consultant-Psychometrist, Department of Pediatrics, University of Alabama Medical Center, Birmingham, Ala. 35233.
Publications: To be submitted for publication; additional information available from Mr. Martin.

25-GC-7 LANGUAGE DEVELOPMENT IN DEAF ADOLESCENTS AND ADULTS

Purpose: To investigate underlying verbal association processes fundamental to the understanding and use of verbal language; to determine if there are any significant differences in deaf subjects trained by different methods in the areas of verbal association processes and the functional knowledge and use of verbal materials.
Subjects: Five matched groups of 50 deaf and hearing adolescents each, including a hearing group matched with the deaf on reading achievement and one matched for age; 400 university students constituting normative groups.
Methods: In a word association test, subjects' responses were obtained and tabulated for 248 common multimeaning words. Subgroups of 20 each were scored for commonality of responses with the college students. A word evaluation test consisted of ratings by 30 subjects from each group on the more and less well known meanings of the 248 multimeaning words. A word definition test followed in which 14 subjects from each of the five groups wrote as many different meanings as they could for 90 of the 248 multimeaning words.
Findings: Commonality results showed the hearing age group most similar to the college norms, the hearing achievement group next, and the three deaf groups least similar and about equal to each other. Word definition results indicated that deaf subjects are as able to produce one acceptable meaning as the younger hearing subjects matched for reading achievement, but less able to produce more than one.
Duration: September 1968-August 1971.
Investigator(s): Solis L. Kates, Ph.D., Psychologist, Clarke School for the Deaf, Northampton, Mass. 01060.

25-GD-1 CAUSES OF BLINDNESS OF SCHOOL AGE CHILDREN

Purpose: To provide a basis for determining the most important problems in preventing blindness in children; to evaluate prevention measures that have been put in operation; and to determine what new problems, if any, require attention.
Subjects: A 20 percent sample of legally blind school children in residential schools for the blind or receiving special services by the state department of education.
Methods: All residential schools for the blind and state departments of education were requested to participate in the study. Instructions were provided for the selection of a 20 percent sample of the children on the list provided the American Printing House for the Blind for quota materials for these children. For participation in the study, a copy of the eye examination report on the sample children is required. If 100 percent participation is secured, a sample of approximately 4,000 children will be available for study.
Duration: Fall 1968-Summer 1970.
Investigator(s): Elizabeth M. Hatfield, M.P.H., Consultant in Statistics, National Society for the Prevention of Blindness, Inc., 79 Madison Ave., New York, N. Y. 10016.
Publications: Report will be published by the National Society for the Prevention of Blindness either as a separate report or in the Society's quarterly journal, The Sight Saving Review.

25-GE-1 A STUDY OF THE EFFECTS OF GROUP PSYCHOTHERAPY ON HEMOPHILIAC BOYS AND THEIR FAMILIES

Purpose: To study the attitudinal and behavioral changes of hemophiliac boys and their parents resulting from psychotherapy.
Subjects: Hemophiliacs diagnosed and in treatment at Children's Memorial Hospital, Oklahoma City.
Methods: Personality and behavior tests are administered before and after nine months of psychotherapy.
Duration: February 1969-June 1970.
Investigator(s): Kenneth Leveque, Ph.D., Chief Psychologist, Child Study Center, and Stephen Caldwell, Ph.D., Psychologist, Children's Memorial Hospital, University of Oklahoma Medical Center, Oklahoma City, Okla. 73104.
Cooperating group(s): Oklahoma Chapter, National Hemophiliac Society.

25-GE-2 A VOCATIONAL REHABILITATION PROGRAM FOR THE DEAF IN A COMPREHENSIVE VOCATIONAL FACILITY

Purpose: To demonstrate that multiply handicapped deaf persons can be served effectively in a comprehensive vocational rehabilitation facility.
Subjects: Persons with hearing impairments plus other physical, mental, or emotional handicaps, most of whom are in late teens to 25, and all of whom are having difficulty obtaining employment.
Methods: Subjects are given a thorough psychosocial and vocational evaluation. They are then exposed to a variety of work and life experiences in the workshop and the community as an aid in developing personal growth and work skills or in relearning positive ways of coping with requirements of living independently in the community.
Findings: Two out of three persons have been placed in jobs and aided in living independently in the community. Most require help toward personal maturation and the development of adult skills, while others need help in learning to handle their environment more positively.
Duration: August 1965-August 1970.
Investigator(s): Harry Kaufer, M.S.S.W., Executive Director, and Sidney N. Hurwitz, M.S.W., Coordinator, Services for the Deaf, Jewish Employment and Vocational Service, 1727 Locust St., St. Louis, Mo. 63103.
Cooperating group(s): Missouri State Section of Vocational Rehabilitation; Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Progress report, 1967, and final report, 1970, to Social and Rehabilitation Service.

25-GE-3 SENSORY AIDS FOR THE DEAF

Purpose: To investigate methods of modifying or encoding sound stimuli for presentation to the deaf through auditory, visual, or tactile channels.
Subjects: Students of the Clarke School for the Deaf.
Methods: Modular programming equipment is used for automated testing and training procedures. Discrimination and recognition skills for various transforms of auditory stimuli, the significance of the method of transformation and the training program in the learning of these skills, and the effects of discrimination and recognition training on speech output will be assessed.
Findings: An initial investigation into the concept and control of fundamental voice frequency using a visible pitch indicator showed no correlation between skill in pitch control and speech intelligibility.

Duration: June 1969-continuing.
Investigator(s): Arthur Boothroyd, Ph.D., Director, C. V. Hudgins Diagnostic and Research Center, Clarke School for the Deaf, Northampton, Mass. 01060.
Cooperating group(s): Department of Electrical Engineering, University of Massachusetts.
Publications: Internal reports and journal articles planned.

25-GF-1 PARENT-CHILD INTERACTION IN JUVENILE DIABETES

Purpose: To identify characteristics distinguishing those family units in which childhood diabetes is typically in good control from those in which the diabetes is in poor control.
Subjects: Diagnosed juvenile diabetics, ages 9 to 13, and their parents; adolescent diabetics, ages 14 to 18; families in which more than one child has diabetes.
Methods: Subjects are tested with a variety of measures of parent-child interaction, adequacy of diabetic information possessed and used, and general learning ability. Resulting information is related to level of diabetic control, as shown by medical, parental, and self-ratings.
Duration: December 1968-December 1969.
Investigator(s): Ann M. Garner, Ph.D., Professor, Crippled Children's Division, University of Oregon Medical School, Portland, Ore. 97201.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-GF-2 FOLLOWUP STUDIES ON CHILDREN AND FAMILIES INVOLVED IN A RENAL HEMODIALYSIS AND TRANSPLANTATION PROGRAM

Purpose: To explore the psychologic and social effects of current drastic therapeutic approach to chronic renal disease; to document which aspects of this experience pose the greatest problems; and to attempt to predict which kinds of families and children will respond well to this kind of treatment program.
Subjects: 23 families currently involved in the program at Children's Hospital in Los Angeles. Sample to be extended as patients are admitted to the program.
Methods: Cooperation between pediatrician, psychiatrist, public health nurses, and other specialists, as needed, is utilized in systematic, intensive study of these patients. Interviews, home visits, and contacts at times of outpatient visits, as well as during children's hospitalization, are the methods of obtaining information from parents. The children have been followed with semistructured interviews administered by psychiatrists, accompanied by some projective tests.
Findings: Unexpected resourcefulness on the part of children and families in adapting to this complicated treatment program. Great need for psychologic and social support, especially posttransplant.
Duration: 1967-continuing.
Investigator(s): Richard Fine, M.D., Head of Hemodialysis and Kidney Transplant, Children's Hospital, and Assistant Professor, and Barbara M. Korsch, M.D., Associate Professor, Department of Pediatrics, University of Southern California School of Medicine, Los Angeles, Calif. 90027.
Cooperating group(s): Psychologists and psychiatrists from Children's Hospital, Los Angeles.
Publications: Paper presented at American Pediatric Society Meeting, Atlantic City, May 1969.

Mentally Retarded

25-HA-1 COMPREHENSIVE COMMUNITY-BASED SERVICES FOR THE RETARDED

Purpose: To study the pursuit of change in the structure of services for the mentally retarded and their families in a single community during a five-year period of planned change.
Subjects: Public and private organizations within the community and links between organizations within this set.
Methods: Sociological field methods, including detailed paired interviewing of representatives of interacting organizations; interviews with parents, professionals, and nonprofessionals associated with organizations planning change, and with individuals associated with organizations that were change targets, supporters, or bystanders; analysis of statistical records of agencies and of community structure, demographic characteristics, and scope of services to groups and individuals in need.
Duration: 1968-1969.
Investigator(s): Louis H. Orzack, Ph.D., Professor and Chairman, Department of Sociology, Rutgers, The State University, Newark 07102; and John T. Cassell, Ph.D., Director, Gengras Center, St. Joseph's College, Princeton, N. J. 08540.
Cooperating group(s): Parents and Friends of Mentally Retarded Children of Bridgeport, Inc., Bridgeport, Conn.; Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Pursuit of Change Series, monographs in press, 1969.

25-HB-1 INTELLIGENCE AND PROJECTIVE TEST INDICES OF MENTAL RETARDATION IN A DEFECTIVE DELINQUENT POPULATION

Purpose: To derive certain consistently applicable WISC/WAIS subtest patterns predictive of mental retardation in a defective delinquent population.
Subjects: 17 male and 16 female delinquent offenders, ages 14 to 17, all mildly retarded with I.Q.'s ranging from 50 to 60.
Methods: WISC and WAIS full scale I.Q.'s, verbal and performance scale I.Q.'s, and individual subtest scale scores are obtained for all subjects from the Psychological Services files of the Montgomery County Court. Individual scale scores on each WISC/WAIS subtest are then ranked, and a preliminary frequency polygon is prepared based on the mean of ranked scaled scores.
Findings: Male defective delinquents tend to score considerably higher than females on the comprehension subtest.
Duration: January 1968-December 1970.
Investigator(s): James M. Owens, M.A., M.Ed., Chief Clinical Psychologist, Robert H. Rutman, B.A., Psychological Assistant, and Jeri B. Cutler, Research Technician, Psychological Services, Montgomery County Juvenile Court, 303 W. 2nd St., Dayton, Ohio 45402.

25-HC-1 DISCRIMINATION OF SUCCESSION IN VISUAL MASKING BY RETARDED AND NORMAL CHILDREN

Purpose: To compare the performance of educable retardates with normals of equivalent mental age on a visual discrimination task.

Subjects: Four groups of 20, 10 boys and 10 girls in each. Three groups were normal children from grades one, four, and eight, and one group was composed of educable retardates in residence at a state training school. All subjects were screened for near visual acuity of 20/29 or better.
Methods: A three-channel tachistoscope was used to present successive visual stimuli in the same visual locus. Duration of the stimuli was 10 or 30 msec. with the interstimulus interval varied to determine threshold for the discrimination of succession.
Findings: Retardates performed at the same level as younger normal children of slightly higher mental age. Mean thresholds of normal children decreased significantly with increasing chronological age.
Duration: February-May 1969.
Investigator(s): Donald H. Thor, Ph.D., Research Scientist, E. R. Johnstone Training and Research Center, Bordentown, N. J. 08505.
Cooperating group(s): Roebling Schools; State of New Jersey.
Publications: Article planned in a psychology journal.

25-HC-2 VISUAL AND AUDITORY MEMORY IN RETARDED CHILDREN

Purpose: To investigate the relationship of visual and auditory memory to the reading process.
Subjects: Actual or potential educable retardates of Rosewood State Hospital.
Methods: Visual and auditory retention tests correlated to reading performance.
Findings: Both simple visual and auditory retention are one of the factors of early success in reading performance.
Duration: January 1969-continuing.
Investigator(s): Renée Fuller, Ph.D., Chief, Psychological Services, Rosewood State Hospital, Owings Mills, Md. 21117.
Publications: Initial publication planned for Fall of 1969.

25-HC-3 DEVELOPMENTAL DEFICIENCIES IN CHILDREN

Purpose: To develop instruments and methods for comprehensive evaluation of handicapped children in cognitive, sensory, perceptual, motor, and psychomotor areas, and to utilize findings to identify domains of functioning, groupings of children with similar patterns of dysfunctioning, etc.
Subjects: Mentally retarded and multiply handicapped children seen as outpatients in a multidisciplinary clinic.
Methods: Comprehensive battery of traditional and experimental psychological and neuropsychological tests is administered and results analyzed in relation to each other and to external, medical, and social variables.
Findings: There appears to be a significant relationship between intellectual and complex motor functioning.
Duration: December 1966-continuing.
Investigator(s): Gerald Groden, Ph.D., Psychologist, Child Development Center, Department of Pediatrics, Rhode Island Hospital, Providence, R. I. 02902.
Publications: Perceptual and Motor Skills 28:27-30, 1969.

25-HC-4 DEMONSTRATING ADAPTIVE BEHAVIOR--PSYCHIATRIC PROBLEM

Purpose: To provide new information on the measurement, use, and function of adaptive behavior in the classification of the mentally retarded in order to further understanding of treatment and training needs of mentally retarded and emotionally disturbed individuals.
Subjects: 1,200 mentally retarded patients in 100 residential institutions from 43 states and 2 provinces of Canada.
Methods: Development of a measurement scale to provide an understanding of adaptive behavior as it relates to mental retardation and emotional disturbance from infancy through adulthood. The use of adaptive behavior as a major aspect of classification will provide for the clarification of many problems presently besetting those working with the mentally retarded. It will help plan programs for groups of emotionally disturbed and retarded individuals and help in the establishment of humane and beneficial procedures for their management and rehabilitation. It will help provide for uniform reporting of retarded populations.
Duration: December 1964-November 1969.
Investigator(s): Henry Leland, Ph.D., Coordinator of Professional Training, Education, and Demonstration, Parsons State Hospital and Training Center, Parsons, Kan. 67357.
Cooperating group(s): American Association on Mental Deficiency; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Adaptive Behavior Scales, 1969; Conference on Measurement of Adaptive Behavior: III, Parsons State Hospital and Training Center, Parsons, Kan., 1968.

25-HC-5 THE SELF-CONCEPT OF EDUCABLE MENTALLY RETARDED BOYS

Purpose: To determine whether groups of educable mentally retarded boys in special classes report a more favorable self-concept than do those in regular classes.
Subjects: 105 males from 15 schools: one group of 40 Negroes and another of 43 whites, who had been enrolled in special classes for no less than one year, and a third group of 22 Negroes in regular classes. All were matched for I.Q.(range of 50 to 75 with a mean of 65), C.A.(mean of 12 years, 5 months), M.A.(mean of 8 years, 2 months), and socioeconomic status.
Methods: Data resulting from a questionnaire and an oral administration of an adapted version of Nardine's Revision of Sears' Self-Esteem Inventory were analyzed in order to determine significant differences between the three groups on self-concept dimensions. Correlation coefficients were calculated for the matrix of 10 dimensions and I.Q.
Findings: Results indicate no significant differences between expressed self-concepts of Negro and white educable mentally retarded boys in special classes. Also, no relationship existed between I.Q. and the positiveness of expressed self-concepts in any of the three groups. In general, the structure of the self-concept was the same for the three groups.
Duration: Completed.
Investigator(s): Octavia B. Knight, Ph.D., Associate Professor of Education and Coordinator of Mental Retardation, North Carolina Central University, Durham, N. C. 27707.
Publications: To be submitted to American Journal of Mental Deficiency.

25-HC-6 LANGUAGE DEVELOPMENT IN THE MENTALLY RETARDED

Purpose: To investigate the effectiveness of live and symbolic modeling techniques in facilitating the language development of educable retarded children; to study the effects of cognitive and intellectual development on language production and comprehension.
Subjects: Educable retarded boys and girls, ages 5 to 15.
Methods: Modeling films and tapes, as well as live models. A variety of techniques is being devised.
Findings: Preliminary findings indicate that audiotapes may be effective in modifying the language productions of the educable retarded children and that the effects of such presentations are durable for a period of at least three weeks.
Duration: September 1968-August 1971.
Investigator(s): Robert M. Liebert, Ph.D., Senior Investigator, Fels Research Institute for the Study of Human Development, Antioch College, Yellow Springs, Ohio 45387; and Richard D. Odom, Ph.D., Associate Professor of Psychology, Vanderbilt University, Nashville, Tenn. 37203.
Cooperating group(s): Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Psychonomic Science, in press, 1969; additional information available upon request from Drs. Liebert and Odom.

25-HC-7 FIGURAL REPRODUCTION AND RECOGNITION OF NORMALS AND EDUCABLE MENTAL RETARDATES

Purpose: To ascertain the role of visual perceptual maturation in learning visually based tasks.
Subjects: 40 educable mental retardates from Miami Sunland Training Center and Hope School for Retarded Children; 40 normal children.
Methods: Bender Gestalt, WISC, and Developmental Test of Visual Perception were administered. Bender Gestalt was given under recognition and reproduction conditions in AB-BA order. RC and RP productions were scored on the Keogh-Smith Scale.
Findings: RC condition significantly better than RP condition for both EMRs and normals.
Duration: September 1968-June 1969.
Investigator(s): Robert M. Allen, Ph.D., Professor of Psychology, and Cynthia Adamo, B.A., Research Graduate Assistant, University of Miami; Leslie N. Alker, M.A., and Martin N. Levine, M.A., Psychologists, Miami Sunland Training Center, Coral Gables, Fla. 33124.
Publications: Will submit to American Journal of Mental Deficiency.

25-HG-1 THE INTELLECTUAL DEVELOPMENT OF NONINSTITUTIONALIZED MONGOLOID CHILDREN

Purpose: To compare the mental growth curve of a group of noninstitutionalized mongoloid children with those curves presented in the literature for institutionalized mongoloid patients.
Subjects: 276 mongoloid children up to age 16 who had not been institutionalized at the time of testing.
Methods: Intelligence test and mental age data were obtained; curves of mental development were plotted and compared with curves presented by other authors.
Findings: Initial inspection of data indicates that mental growth curves for noninstitutionalized mongoloid children are higher than mental growth curves for institutionalized mongoloid patients.

Duration: June-December 1969.
Investigator(s): Allan G. Barclay, Ph.D., Associate Director, Child Development Clinic, and Robert E. Lamp, Ph.D., Assistant Professor, Department of Psychology, St. Louis University, St. Louis, Mo. 63104; Joseph L. Meindl, Ph.D., Assistant Superintendent of Schools (Diocese), Pittsburgh, Pa.
Cooperating group(s): St. Anthony School for Exceptional Children, Oakmont, Pa.
Publications: To be submitted to a child development or mental retardation journal.

25-HH-1 USE OF MULTISENSORY REINFORCEMENT IN TOILET TRAINING RETARDATES

Purpose: To investigate the effectiveness of using multisensory stimulation as a reinforcement in the toilet training of mentally retarded boys.
Subjects: 12 boys, ages 10 to 20, profoundly, severely, and moderately retarded; 12 controls matched for age and I.Q.
Methods: Experimental group received verbal praise and several types of mechanical sensory stimulation from a vibrator chair, stereophonic record changer and headphone set, food vending machines, and a pinball machine. This multisensory stimulation acted upon the child's senses of hearing, taste, vision, and feeding and served as reinforcers. Control group received only verbal praise. Comparison was made of pre- and posttest results of both groups on the Toilet Rating Scale.
Duration: January-March 1969.
Investigator(s): Karla K. Bates, B.S.N., Psychiatric Nurse, and Simma Armenti, B.S.N., Psychiatric Nursing Education Director, Fairview State Hospital, Costa Mesa, Calif. 92626.
Publications: Abstract sent to California State Department of Mental Hygiene Research Digest.

25-HH-2 THE EXPERIMENTAL ANALYSIS OF VOCATIONAL BEHAVIORS III--DAY SCHOOL PROGRAMS FOR THE TRAINABLE MENTALLY RETARDED

Purpose: To further develop procedures for the functional analysis of vocational tasks and the preparation of programs of vocational training based on operant conditioning principles. (See Research Relating to Children, Bull. No. 24-HC-2.)
Subjects: 16 trainable mentally retarded students, ages 16 to 20, enrolled in the adult program of the Pearl Buck Center, Eugene, Ore.
Methods: Tasks related mainly to workshop, home management, and day work training were analyzed in accordance with the technology of functional analysis. Resulting stimulus and response components of each task were used in the development of maximally efficient training programs which were evaluated through various measures of response characteristics.
Duration: September 1967-September 1969.
Investigator(s): James E. Crosson, Ed.D., Associate Director, Research and Training Center in Mental Retardation, University of Oregon, Eugene, Ore. 97403.
Publications: Available in working paper form.

25-HJ-1 TOTAL CARE OF THE MULTIPLY HANDICAPPED CHILD

Purpose: To determine the limits of development which can be achieved by the multiply handicapped child through an intensive treatment program.
Subjects: Markedly retarded, multiply handicapped children residing in a state mental hospital.
Methods: Varied types of diets and feeding schedules are used to improve the children's nutritional status. In addition, physical therapy techniques are intensively applied to increase perceptual-motor development, and a greatly increased level of sensory input is used in order to produce greater integration of and response to sensory stimulation, with the ultimate goal of enhanced cognitive development.
Duration: June 1969-May 1972.
Investigator(s): James T. Shelton, M.D., Medical Director, Porterville State Hospital, Porterville, Calif. 93257.
Cooperating group(s): Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Publication planned.

25-HJ-2 EVALUATION AND TREATMENT OF SELF-DESTRUCTIVE CHILDREN

Purpose: To investigate functional relationships between environmental parameters and self-injurious behavior; to develop practical techniques for reducing or eliminating SIB in institutional settings.
Subjects: Severely retarded self-injurious patients between ages 9 and 15.
Methods: Systematic withdrawal of reinforcing events (especially social reinforcers) contingent upon SIB. Systematic administration of reinforcers (social, food, tokens, etc.) contingent upon socially desirable behaviors which are incompatible with SIB. Systematic application of aversive stimulus in controlled environments contingent upon appearances of SIB. In each case deliberate effort is made to generalize socially desirable behaviors to the entire ward by systematically introducing control stimulus present on the ward into the controlled situation.
Findings: Both extinguishment and contingent punishment markedly reduce SIB, although the behavior may return. If the patient is brought into controlled environment, apparently both extinguishment and punishment are stimulus specific and may not generalize from control situation into everyday life situations. If generalization from clinic to ward or home is desired, deliberate effort must be directed to achieving it.
Duration: November 1968-April 1970.
Investigator(s): Nathan B. Miron, Ph.D., Senior Psychologist, Sonoma State Hospital, Eldridge, Calif. 95431.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

Emotionally Disturbed and Mentally Ill

25-JA-1 A STUDY OF CHIEF COMPLAINTS PRESENTED ON THE APPLICATION BLANK AS PREDICTORS OF DIAGNOSTIC CLASSIFICATION

Purpose: To develop appropriate methods for scaling patient symptom data, and to determine the role of symptomatology in predicting diagnosis.
Subjects: 150 children from the Reiss-Davis Child Study Center and 148 from the San Fernando Valley Child Guidance Clinic.

Methods: Patient symptom profiles used were derived from report of chief complaints by parent at time of referral to the clinics. Symptom data for each patient were represented by four different symptom profiles, and assignment of each chief complaint to one of the symptom categories was made by a clinician. American Psychiatric Association diagnostic codes used to label patients were grouped into six classes. Each child was then placed in the diagnostic class in which he most likely belonged, based on his symptom profile at time of application for help and a comparison of this statistical classification to the diagnostic class into which the patient was actually assigned by a clinician. Stepwise discriminant analysis procedure was used to make a maximum likelihood classification for each patient and to permit a comparison between the statistical and clinical classifications.
Findings: Chief complaints as presented by parents and recorded on application blanks do not, by themselves, seem to be remarkable predictors of clinical diagnosis.
Duration: January-October 1969.
Investigator(s): Bernice T. Eiduson, Ph.D., Director, and Diane M. Ramsey-Klee, Ph.D., Research Psychologist, Division of Research, Reiss-Davis Child Study Center, Los Angeles, Calif. 90035.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Paper presented at Western Psychological Association Meeting, Vancouver, British Columbia, Canada, June 1969; final report to National Institute of Mental Health.

25-JA-2 DISTURBANCE IN UNDERPRIVILEGED PRESCHOOL CHILDREN

Purpose: To follow up a group of underprivileged children in order to determine (1) the longitudinal persistence of the major competence and symptom factors identified in previous work; (2) prevalence, incidence, and remission rates; and (3) relationship between competence and symptom levels as measured in day care and level of conduct and achievement in elementary school.
Subjects: 1,200 underprivileged children representing a 20 percent random sample of all children attending the day care centers of the New York City Department of Social Services, and 200 children identified as emotionally disturbed from day care centers, therapeutic nurseries, and mental hospitals; all are between the ages of three and five.
Methods: Children from the Department of Social Services' centers are rated twice yearly on the Social Competence Scale and the Symptom Checklist. They are followed through these instruments for a minimum of two years. All those entering public and parochial schools are given the Metropolitan Achievement Test and followed by ratings on the Peterson Problem Checklist and the Schaefer Classroom Behavior Inventory. Reference group children provide guides for determining the amount and level of disturbance of children in day care through their ratings on the Competence Scale and Symptom Checklist.
Duration: May 1967-April 1970.
Investigator(s): Martin Kohn, Ph.D., Research Psychologist, William Alanson White Institute, 20 W. 74th St., New York, N. Y. 10023.
Cooperating group(s): Parochial schools of the Diocese of Brooklyn, and Archdiocese of New York; New York City Board of Education, N. Y.; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Progress report available; further findings available in May 1970.

25-JA-3 BEHAVIORAL MANAGEMENT IN DENTISTRY FOR HANDICAPPED CHILDREN UTILIZING NITROUS OXIDE-OXYGEN INHALATION ANALGESIA

Purpose: To explore and evaluate a variety of physical and chemical modalities in the clinical dental management of handicapped children.
Subjects: Children with physical, emotional, and intellectual abnormalities.
Methods: Nitrous oxide is used with and without premedicative drugs in analgesic doses on children with a variety of handicapping conditions. Dosages and drugs used are recorded, evaluated, and documented on a 16 mm. movie film.
Findings: Many handicapped children, previously considered untreatable in the average dental office, are effectively managed with nitrous oxide analgesia.
Duration: Reported June 1969.
Investigator(s): Harold Diner, D.D.S., Staff Pedodontist, Children's Evaluation and Rehabilitation Clinic, Bronx Municipal Hospital Center, and Assistant Professor of Dental Surgery, Albert Einstein College of Medicine, Yeshiva University, Bronx, N. Y. 10461.
Publications: In Relative Analgesia in Dental Practice, H. Langa (Ed.). Philadelphia: W. B. Saunders Co., 1968.

25-JB-1 THE EFFECT OF MIXED POSITIVE AND NEGATIVE OUTCOMES ON CHOICE BEHAVIOR IN SOCIOPATHIC AND NONSOCIOPATHIC POPULATIONS

Purpose: To test the hypothesis that sociopaths will be less influenced by punishment in a choice situation than will nonsociopaths.
Subjects: 84 males, ages 13 to 20, divided equally into one sociopathic and one nonsociopathic group.
Methods: Subjects were assigned to one of the two groups on the bases of their scores on the Quay-Peterson Inventory and the degree to which they conformed to Cleckley's criteria for the "true" sociopath. Each of the two groups was then subdivided into three groups of 14 each, matched on age and educational level. Each subject was presented with an experimental task consisting of a guessing situation in which he was asked to predict whether a picture or a blank would appear on a screen in a given trial. Data were analyzed through a two-way fixed factor analysis of variance, i.e., classification v. proportion of negative consequences.
Duration: March-August 1968.
Investigator(s): Paul H. Miller, Ph.D., Staff Clinical Psychologist, Child-Adolescent Program, Mendota State Hospital, Madison, Wis. 53704.

25-JB-2 THINKING DISORDERS IN PARENTS OF YOUNG PSYCHOTIC CHILDREN

Purpose: To test the hypothesis that parents of psychotic children do not show the same extent of thought impairment found in parents of adult schizophrenics, when tested on the Object Sorting Test.
Subjects: 34 parents of young psychotic children; 22 parents of retarded and 42 parents of normal children as controls. The parents of adult schizophrenics were studied in previous research.
Methods: Parents were given the Object Sorting Test according to the Lovibond system.
Findings: Parents of psychotic children showed more thought impairment than those of normal children; mothers of psychotic children showed more impairment than fathers.
Duration: November 1965-October 1968.

Investigator(s): Eric Schopler, Ph.D., Director, and Julie Loftin, B.A., Research Assistant, Child Research Project, University of North Carolina School of Medicine, Chapel Hill, N. C. 27514.
Cooperating group(s): Child Psychiatric Unit, Murdoch, N. C.; Foundations' Fund for Research in Psychiatry; National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Journal of Abnormal Psychology, in press, 1969.

25-JB-3 ETIOLOGY IN COMPUTER-GROUPED PSYCHOTIC CHILDREN

Purpose: To identify factors in the pre- and postnatal case histories of psychotic children which may be causally related to their disorder.
Subjects: 1,600 psychotic children for whom detailed biographical and medical data are on file at the Institute for Child Behavior Research.
Methods: Homogeneous groups of children are identified by computer cluster analysis of a detailed checklist description of symptomatology. After the clusters have been identified, statistical analysis of information on another form is done to find etiological-type factors which significantly discriminate between clusters. Etiological information consists of 250 questions on drugs taken by mother during pregnancy, blood types, genetic diseases in near relatives, etc.
Findings: Preliminary results indicate that certain food allergies may be linked to infantile autism.
Duration: August 1965-1972.
Investigator(s): Bernard Rimland, Ph.D., Director, Institute for Child Behavior Research, 4758 Edgeware Rd., San Diego, Calif. 92116.
Cooperating group(s): American Schizophrenia Foundation; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Reports to appear in journals and perhaps in monograph form.

25-JB-4 MENTAL PATIENTS AS PARENTS: THEIR CHILDREN'S FATE

Purpose: To compare the type of reported behavior and emotional difficulties experienced by children of schizophrenics, other state mental patients, welfare recipients, convicts, matched controls, and a representative sample of children.
Subjects: 1,186 children, including children of a group of mental patients released in 1956, and matched groups from the San Francisco area, all of whom were newborn to age 16 in 1956.
Methods: In a 12-year retrospective study, children's adjustment was traced through records from public schools, social and welfare agencies, police, juvenile courts, psychiatric clinics, and health and mental hygiene files. Through this procedure, the amount and type of "official deviance" assigned to children from deprived, disorganized, or disturbed families was determined. Records also allowed study of possible transmission of schizophrenia through a comparison of children of schizophrenic mothers with those in other groups.
Findings: Preliminary findings indicate that all children from poverty groups changed schools often during their academic careers. Dropout and transfer rates were excessively high for children of mental patients, welfare recipients, and convicts. Also, in those cases in which a social worker was actively working with the family, reported deviancy among children was significantly greater than in similar families in which a social worker was not actively involved.

Duration: June 1967-May 1970.
Investigator(s): Dorothy H. Miller, D.S.W., Director of Research and President, Scientific Analysis Corporation, 4339 California St., San Francisco, Calif. 94118.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: To be submitted to psychiatric and social work journals; book planned for 1970.

25-JB-5 CHARACTERISTICS OF CHILDREN CHOSEN FOR PSYCHOTHERAPY VERSUS THOSE NOT CHOSEN, IN AN AAPCC OUTPATIENT CLINIC

Purpose: To compare certain characteristics of clients chosen for psychotherapy (T) v. those not chosen for therapy (NT). The null hypothesis was that there would be no significant differences in terms of age, sex, socioeconomic background, intelligence, referral source, and presenting complaints.
Subjects: 50 T and 50 NT were selected from cases closed between July 1, 1966 and June 1, 1969. Included were all those given psychotherapy, and every tenth case not given psychotherapy, for ages 5 through 17.
Methods: The T and NT groups were compared by analysis of variance, t test, or chi square, as appropriate to the data, for the variables of age, sex, socioeconomic background, intelligence, referral source, and presenting complaints; p .05 was accepted as indicating a significant difference, two-tailed assumption.
Findings: Significant differences were as follows: Group T girls were older, and Group T boys were younger than group NT; of the T group, 50 percent were girls, but of the NT group, only 35 percent were girls. By the Warner Occupational Level Scale, Group T were of higher socioeconomic level than NT group. Both Group T boys and girls were of higher I.Q. than NT, but NT girls were also of lower I.Q. and smaller S.D. than any of the other three groups. Group T were referred primarily from schools and parents; Group NT were referred primarily from courts and welfare agencies. Only three of the 35 items of the complaint checklist showed differences between T and NT, a number consistent with chance; NT were more often truant, withdrawn, and slow in learning.
Duration: June-July 1969.
Investigator(s): R. H. Marchand, M.Ed., Psychology Research Intern, and Margaret M. Riggs, Ph.D., Chief Psychologist, New Hampshire Child Guidance Clinic, 120 S. Fruit St., Concord, N. H. 03301; William W. Lothrop, Ph.D., Psychology Consultant, and Professor of Psychology, Boston University, Boston, Mass.
Publications: Machine copy available for $1.00 from New Hampshire Division of Mental Health, Concord, N. H.

25-JB-6 COGNITIVE PROCESSES, SCHIZOPHRENIA, AND SOCIAL PROBLEMS

Purpose: To study the problems of understanding and communication among members of troubled families; specifically, to evaluate effectiveness of laboratory derived techniques such as taped communication and feedback about judgments in establishing effective communication, increasing understanding of each other, and improving interpersonal relations among family members.
Subjects: Eight sets of parents of an adolescent boy who has been placed in a correctional institution.
Methods: The interpersonal learning paradigm (Hammond, Wilkins, Todd,

1966), allowing evaluation of subjects' judgments about relevant issues and their accuracy in predicting the judgments of other family members, and a tape exchange procedure in which tape recordings are exchanged between the boys and their own parents are utilized. Design involves pretest stage (measures of judgments and predictions of others), exchange of tape recordings without face-to-face interaction, and posttest identical to pretest. During exchange of tapes and prior to posttest subjects are given feedback about their judgments and predictions.
Findings: Preliminary data suggest that exchange of tape recordings and feedback lead to establishment of effective communication among family members, increased ability of family members to predict others' judgments, and increased desire for continued interaction on a face-to-face basis.
Duration: May-December 1969.
Investigator(s): Kenneth R. Hammond, Ph.D., Professor of Psychology, and Monroe J. Miller, Ph.D., Research Associate, Institute of Behavioral Science, University of Colorado, Boulder, Colo. 80302.
Cooperating group(s): Colorado Youth Center; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-JB-7 RESEARCH PROGRAM INVESTIGATING THE FAMILY UNIT AND ITS RELATIONSHIP TO BEHAVIOR OF FAMILY MEMBERS

Purpose: To develop a means of identifying and isolating variables important to the functioning of the family system, and to study the effects of these variables on the transactional behavior of the family unit and the behavior of family members; to develop a therapy technique for the family unit most suited to modifying disturbed family functioning; to investigate the use of animal models in facilitating family study. (See Research Relating to Children, Bull. No. 5-K-23, No. 15-L-17, and No. 18-X-13.)
Subjects: Families referred to a child and family center for psychiatric treatment; "normal" families in the community; primates.
Methods: Sociological, psychological, and psychiatric techniques are used to study parental role relationships, and various approaches to family therapy are used in attempts at modifying the pathological aspects of these relationships. Instruments are developed in order to study a number of other dimensions of family life such as affective expression, autonomy, sexual functioning, problem-solving, etc. Primate studies involve investigations of scape-goating patterns and of behavioral effects of an upset in dominance hierarchy patterns in primate triads.
Findings: Results indicate that parental role reversal in human families is related to high levels of pathology in the family unit.
Duration: Continuing.
Investigator(s): Nathan B. Epstein, M.D., Chairman and Professor; Linda S. Siegel, Ph.D., Assistant Professor, and Gary Griffin, Ph.D., Visiting Assistant Professor, Department of Psychiatry, McMaster University, Hamilton 15, Ontario, Canada.
Cooperating group(s): Medical Research Council of Canada; Foundations' Fund for Research in Psychiatry.
Publications: Information available from Dr. Epstein.

25-JC-1 "SUICIDE" AS SEEN IN POISON CONTROL CENTERS

Purpose: To establish the predictive value of poisoning events in children age six and older as related to subsequent suicide attempts and to other gross derangements of behavior; to recognize self-destructive or

impulsive behavior at an age when manipulative environmental therapy is of maximum value.
Subjects: Children, ages 6 to 18.
Methods: One thousand children hospitalized in 1968 at representative poison control centers in the United States are surveyed to discover if epidemiological data reported for accidental poisoning in children age six and older are significantly different from data in children ages zero to four years. An initial inquiry is made into so-called accidental ingestions as related to precipitating factors, past history of difficulties in adjustment, maturation of child's concept of the irreversibility of death, and the frequency of diagnosis of a suicide attempt or behavior disorder. In addition, a "psychologic autopsy" is conducted on 50 children treated for poisoning at the Nebraska Master Poison Control Center in Omaha, with a similar evaluation of 50 controls to determine the relative lethality of intent in accidental, subintentional, and intentional poisonings and other self-inflicted trauma.
Findings: In the national survey, inadvertent intoxications were unusual in even the youngest group. The diagnosis of "suicide" and intentional poisoning correlated with a past history of difficulties and current history of stress. Sociocultural correlations show a distinctive variation with age and sex.
Duration: March 1968-February 1970.
Investigator(s): Matilda S. McIntire, M.D., Assistant Research Professor of Pediatrics and Neurology, and Carol R. Angle, M.D., Associate Professor of Pediatrics, University of Nebraska College of Medicine, Omaha, Neb. 68105.
Cooperating group(s): 92 poison control centers in the United States, Canada, England, Scotland, and New Zealand.
Publications: Abstract, The Society for Pediatric Research, 1969 Meeting.

25-JD-1 MATERNAL EMPATHY AND PSYCHOLOGICAL FLEXIBILITY IN ENURESIS

Purpose: To study the interaction of innate and environmental deficits in verbal-symbolic differentiation of self-image, relating this to faulty inhibition and a reactive style of adjustment.
Subjects: 30 enuretic children and 30 nonenuretic controls, ages 8 to 15, selected from a larger group being studied with respect to physiological factors in enuresis and to assess the response to imipramine (Tofranil).
Methods: A battery of diagnostic tests, together with structured projective tests and a checklist allowing the mother to predict her child's responses and compare him to others.
Findings: Mothers of enuretic children seem less empathic than control mothers. There is also some tendency for enuretic children who respond well to imipramine treatment to have deficits in immediate concentration.
Duration: September 1966-October 1969.
Investigator(s): Thomas R. Hakala, M.D., Urology Service, and Richard R. Peebles, Ph.D., Chief Psychologist, Child Psychiatry Unit, Massachusetts General Hospital, Boston, Mass. 02114.
Cooperating group(s): Geigy Pharmaceutical Company, Yonkers, N. Y.; Children's Service, Massachusetts General Hospital.

25-JD-2 THE STIGMA OF OVERWEIGHT--SIX AUTOBIOGRAPHIES

Purpose: To show that the problem of obesity in young persons is social-psychological in nature and is a problem of stigmatization rather than a medical-nutritional problem.

Subjects: Six overweight teenagers and young adults.
Methods: Subjects were requested to provide structured autobiographies which were to include their own recommendations as to proper treatment. Repeated interviews were recorded and autobiographical and interview data combined and evaluated.
Findings: Discrimination against overweight teenagers creates feelings of guilt and shame which must be overcome by "acceptance". Weight reduction follows rather than preceeds acceptance.
Duration: 1966-completed.
Investigator(s): Werner J. Cahnman, Ph.D., Professor of Sociology, Rutgers, The State University, Newark, N. J. 07102.
Publications: Sociological Quarterly, Fall 1968.

25-JE-1 NEUROPHYSIOLOGIC CORRELATES OF AUTISTIC BEHAVIOR

Purpose: To study the background and evoked electroencephalographic correlates of specific repetitive motor and perceptual behaviors observed in young children with early infantile autism; to explore the possibility that these behaviors recur either as an inherent variant or in response to some internal state independent of the environment and accompanied by demonstrable neurophysiologic correlates not found in other diagnostic groups; to investigate the idea that early infantile autism is a disease associated with a deviant neurophysiology which particularly affects the capacity to experience constancy of normal perception.
Subjects: Children manifesting signs of early infantile autism.
Methods: Repetitive motor and perceptual behaviors observed in subjects recur in a measurable quantifiable manner in respect to patterning, frequency, and duration. This makes it possible to correlate both spectral and discriminate analysis and coherence of the electroencephalogram as well as the average evoked response to repetitive auditory stimuli, with the presence or absence of this behavior in controlled environments. A comprehensive computer analysis will be made of background and evoked EEG activity obtained during periods of characteristic autistic behavior and periods when this activity is not apparent. These data are collected in deliberately manipulated environments in order to assess any change in behavior and EEG that may be reliably induced by such manipulation and to compare EEG data in different states of consciousness.
Duration: 1967-continuing.
Investigator(s): Edward M. Ornitz, M.D., Assistant Professor of Psychiatry, University of California Medical Center, Los Angeles, Calif. 90024.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-JF-1 SEX SPECIFICITY, PARENTS, AND SCHIZOPHRENIA

Purpose: To determine whether there is a parent-child sex-specific relationship in schizophrenia in which the parent of the same sex as the schizophrenic offspring is a relatively less adequate and appropriate sex-role model for the index family member than the parent of the opposite sex is for the index member's opposite-sex sibling, and than the normal control parent of the same sex is for the offspring.
Subjects: 256 four-member families (father-mother-son-daughter): 64 with a male schizophrenic offspring, 64 with a female schizophrenic offspring, and 128 matched normal control families.

Methods: A three-and-a-half hour test battery is administered to each of the four family members, plus a structured family interaction task and a structured interview. Included in the test battery are measures of psychopathology, social desirability set, thinking and communication deficit, sex role identification, and other personality traits and attributes.
Duration: October 1967-December 1970.
Investigator(s): Alfred S. Friedman, Ph.D., Director of Research, Philadelphia Psychiatric Center, Ford Rd. and Monument Ave., Philadelphia, Pa. 19131.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-JG-1 MATERNAL REINFORCEMENT AND PUNISHMENT CONTINGENCY MANAGEMENT OF AGGRESSIVE BOYS

Purpose: To train mothers, as a group, to control aggressive behaviors and to strengthen appropriate social peer behaviors in their sons; to study effects of this training upon the boys' adjustment to peers in school; and to compare management patterns of mothers of normal boys to those of aggressive boys.
Subjects: Eight boys, ages 8 to 10, described as extremely difficult to manage at home and highly aggressive toward other children in school to the point of action by the school to reduce the child's school day or expel him.
Methods: Boys meet in groups of four with their mothers. Baseline measures of antisocial and prosocial behavior toward peers will be obtained. Then training will proceed, utilizing a scoreboard which will keep track of points mothers are trained to give as a reward or withdraw as a punishment for ongoing peer group behaviors of their sons. Use of television will permit immediate feedback for training the parents. Pre- and post measures of behaviors at home, school, and in the clinic will be obtained by scoring videorecordings.
Duration: March 1969-June 1970.
Investigator(s): Martha E. Bernal, Ph.D., Staff Psychologist and Assistant Professor of Medical Psychology, and Louise D. Epps, Ph.D., Staff Psychologist, Neuropsychiatric Institute, University of California, Los Angeles, Calif. 90024.
Cooperating group(s): California Department of Mental Hygiene.
Publications: Publication planned at completion of project.

25-JH-1 EFFECTS OF D. AMPHETAMINE UPON BEHAVIOR AND ACHIEVEMENT LEVEL OF HYPERKINETIC CHILDREN

Purpose: To replicate findings dealing with the effects of amphetamine treatment upon behavior and achievement of hyperkinetic children.
Subjects: 20 children in a school setting.
Methods: Four week double-blind study using placebo and D. amphetamine. Children are evaluated for psychiatric, neurological, medical, and psychological factors, and are rated by parents and teachers.
Duration: May-June 1969.
Investigator(s): Richard J. Finnerty, M.A., Associate Director, Dorchester Child Guidance Center, 555 Morton St., Dorchester, Mass. 02124.
Cooperating group(s): Boston State Hospital; Boston public school system; Smith, Kline, and French.
Publications: Paper planned.

25-JH-2 EVALUATION OF THE THERAPEUTIC NURSERY GROUP

Purpose: To evaluate the specific nature of the impact of a therapeutic nursery group on emotionally disturbed children.
Subjects: 20 emotionally disturbed children.
Methods: Ten children participate in the therapeutic nursery group program, which is maintained as an adjunct to the day care program of the Hudson Guild; the remaining children act as controls, participating only in the day care program. Measures such as objective observations of children's behavior and behavior checklists are taken at the beginning and end of the program year and results compared for the experimental and control groups.
Duration: June 1968-June 1969.
Investigator(s): Clarice J. Kestenbaum, M.D., Project Director, Douglas Holmes, Ph.D., Project Consultant, and Hanya Fishman, B.A., Research Assistant, Hudson Guild Counseling Service, 441 W. 26th St., New York, N. Y. 10001. (Reported by Jack Sasaki, Clinic Administrator, Hudson Guild Counseling Service.)
Cooperating group(s): New York State Department of Mental Hygiene.

25-JH-3 THE FEASIBILITY OF USING A "BUDDY" SYSTEM TO ASSIMILATE HANDICAPPED CHILDREN BACK INTO THE REGULAR CLASSROOM

Purpose: To provide an environment where emotionally disturbed children could function with a feeling of success while being equipped with basic skills necessary for functioning as a self-supporting adult; specifically, to provide disturbed children with a normal "buddy" in order to compensate for usual lack of social interactions, and to aid in their assimilation into a normal classroom situation.
Subjects: Seven emotionally disturbed children, ages five to nine, and seven normal children, ages six to nine.
Methods: Children were paired three hours daily for an eight-week summer program consisting of outdoor projects with opportunities for them to help one another. Certain activities were designed to sap so much energy from the generally energetic and sometimes hyperkinetic children that they would be more relaxed and therefore more receptive to personal relationships. Children were pre- and posttested, and children, parents, and staff were interviewed.
Findings: Compatible social relationships developed between the normal and handicapped children while they were under staff supervision, but this did not carry over to free play situations. The handicapped group improved in their development of socially acceptable behavior and in their ability to accommodate to group problem-solving and activities in children, but these effects were not of a permanent nature. In addition, both groups showed a gain in knowledge of nature and conservation concepts. Results, however, were not remarkable enough to warrant the transfer of any of the special class students into a regular classroom. With regard to the "buddies", it is concluded that they cannot tolerate the emotionally handicapped as friends, but can enjoy a learning program with them while serving as good models of behavior.
Duration: 1968-continuing.
Investigator(s): H. E. Kessler, Director, Elementary Education, Independent School District No. 181, Brainerd Public Schools, Brainerd, Minn. 56401.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: The Feasibility of Using a "Buddy" System to Assimilate Handicapped Children Back Into the Regular Classroom, mimeographed report, Brainerd Public Schools, October 1968.

25-JI-1 THE UTILIZATION OF GAMES AS A PSYCHOEDUCATIONAL TOOL IN THE EDUCATION OF EMOTIONALLY DISTURBED ADOLESCENTS

Purpose: To utilize games as part of the regular, ongoing classroom work in a hospital school for emotionally disturbed adolescents in order to identify emotional, intellectual, and interpersonal causative factors underlying individual and group learning problems, and to provide direct experiences which will aid students to overcome these difficulties which impede the learning process.
Subjects: Emotionally disturbed adolescents in hospital schools; control groups of normal adolescents in regular schools.
Methods: Evaluation will be a continuous process and will be concerned with both academic achievement and emotional-social change. Change along relevant dimensions will be determined at appropriate points. Achievement data will be gathered in all subject areas, using standardized achievement tests that cover substantive game objectives. Two measures will be used to identify cognitive style in individual students. The first is a visual discrimination task (matching familiar figures) in which students are shown a picture (the standard) and six very similar pictures, only one of which is identical to the standard. The student selects the one picture that is identical to the standard. The second is a haptic-visual matching task which requires the student to explore with his fingers a concealed form. He is then asked to choose from a visual array of five pictures the one which illustrates the form he has just explored haptically. In both measures the major scores are response time and errors, response times for the Visual Haptic Test being time spent exploring the forms haptically and decision time. Direct observations will be made continuously of impulsive-reflective behavior, creativity, language usage, rate of learning, motivation, peer group interaction, and patterns of defensive behavior. Conservatism-risk in decisionmaking will also be noted.
Duration: June 1968-May 1970.
Investigator(s): Helen J. Kenney, Ed.D., and William C. Kvaraceus, Ed.D., Arlington School, McLean Hospital, 115 Mill St., Belmont, Mass. 02178.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-JI-2 SUPPORT OF ONE PHASE OF AN INNOVATIVE PROGRAM FOR TREATMENT OF ADOLESCENT DRUG USERS

Purpose: To determine the effects of a two-month treatment program for drug users.
Subjects: Approximately 150 15- to 25-year-old male and female users of dangerous drugs other than hard narcotics.
Methods: Basic program includes short-term inpatient hospitalization in a therapeutic community, followed by day care and outpatient aftercare groups at the Langley Porter Neuropsychiatric Institute in San Francisco. Emphasis is on multimedia adjunction to group and multiple family therapy. Creativity seminars, audiotapes, videotapes, a sound motion picture documentary, and other innovative techniques are utilized.
Findings: Patients, about half of whom are or have been psychotic, have shown marked improvement in most cases.
Duration: July 1967-continuing.
Investigator(s): Harry A. Wilmer, M.D., Ph.D., Consultant, Department of Psychiatry, Scott and White Clinic, Temple, Tex. 76501.
Cooperating group(s): Rosenberg Foundation; Harris Foundation; Division Fund; Van Ameringen Foundation; California Department of Mental Hygiene.
Publications: Book in preparation; articles in Community and Mental Hospital and Journal of the American Medical Association; Educational Television film being prepared by Station KQED, San Francisco, for release to networks, schools, and other educational institutions.

25-JI-3 ADOLESCENT COMMUNITY DOMICILIARY CARE PROGRAM

Purpose: To demonstrate that placement of emotionally disturbed adolescents in the community is a feasible plan for enhancing inpatient treatment in providing a more realistic environment in which the adolescent might learn to cope with his problems.
Subjects: 77 children.
Methods: Children selected from the adolescent population of the Southeast Louisiana Hospital are transported to and from the hospital daily and reside in hospital-approved homes nightly and weekends. They are provided with an adequate inhospital milieu, occupational, recreational, and drug therapy, school, and group or individual therapy, and also with a realistic home environment. The children, their own parents, and the hospital families are evaluated and supervised by a team consisting of staff psychiatrist, clinical social worker, psychologist, registered nurse, secretary, and drivers, in conjunction with the testings, reports, etc. of the regular hospital staff.
Findings: Placement in boarding homes offers feasible and helpful channels of management and treatment of the disturbed adolescent population. It has also provided better community relationships in dealing with and understanding mental health.
Duration: June 1964-December 1969.
Investigator(s): Thomas L. Young, M.D., Superintendent, and Gary A. Sneed, M.D., Clinical Director and Director of Adolescent Service, Southeast Louisiana Hospital, Mandeville, La. 70448.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Hospital Community Psychiatry Journal; paper presented at World Congress of Psychiatry, Spain, and to the American Psychiatric Association for the 1967 Mental Health Service Achievement Awards competition.

25-JI-4 INTENSIVE TREATMENT FOR ADOLESCENTS, 16 TO 18 YEARS OF AGE, WITH EMPHASIS ON RE-EDUCATIONAL AND REHABILITATIVE THERAPY

Purpose: To test the efficacy of a separate unit in a state mental hospital for emotionally disturbed adolescents, in conjunction with education and rehabilitation programs.
Subjects: 25 boys and 25 girls, ages 14 to 18, who were inpatients at Kings Park State Hospital and are now in the Northeast Nassau Psychiatric Hospital.
Methods: In order to effect behavioral changes necessary to children's education and rehabilitation, an intensive program of psychiatric therapy was introduced in addition to the formal school, vocational, rehabilitation, occupational, and recreational programs. A student government was set up in an attempt to improve social responsiveness and poor interpersonal relationships and to create a sense of responsibility.
Findings: Results indicate that working with adolescents in a separate unit and offering an intensive adult program with the opportunity to study while living in a protective environment is a very worthwhile undertaking.
Duration: September 1965-August 1970.
Investigator(s): Olga von Tauber, M.D., Director, Northeast Nassau Psychiatric Hospital, Kings Park, N. Y. 11754.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Therapeutic Communication with Adolescents in a State Hospital Setting, mimeographed report.

25-JI-5 ADOLESCENT TREATMENT PROGRAM

Purpose: To establish a short-term, intensive, early treatment program for emotionally disturbed adolescents; to prevent long-term institutionalization.
Subjects: To date approximately 200 male and female adolescents, ages 12 to 18.
Methods: Utilization is made of all available psychiatric treatment modalities including reality therapy, attitude therapy, and milieu approaches. Much larger use than formerly is made of resources in patients's own community, and return to home environment as soon as possible is emphasized.
Duration: July 1967-July 1971.
Investigator(s): Lawrence G. Behan, M.D., Superintendent, and Eugene P. Engen, Ph.D., Yankton State Hospital, Yankton, S. D. 57078.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Results will be published in appropriate psychiatric and psychological journals.

Socially Deviant

25-KC-1 NATIONAL SURVEY OF YOUTH

Purpose: To measure delinquent activity, detected and undetected, to obtain descriptions of the who-what-when-where-and how's of their delinquent acts, and to place these facts in a context of psychological, sociological, economic, and cultural variables measured at the time among the same youngsters. (See Research Relating to Children, Bull. No. 20-DD-6.)
Subjects: Random sample of 847 boys and girls 13 to 16 years old in the continental United States.
Methods: Husband and wife teams in their early 20's were trained to interview the youngsters, then sent throughout the United States to contact the teenagers for an interview. Respondents and interviewers were matched on sex. Each interview was taken at a location away from the respondent's home, out of earshot of his family. Additional data were coded for each respondent's area from the 1962 County and City Data Book in order to ascertain whether community characteristics are related to delinquency.
Duration: January 1966-December 1969.
Investigator(s): Martin Gold, Ph.D., Program Director, Research Center for Group Dynamics, Institute for Social Research, University of Michigan, Ann Arbor, Mich. 48106.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Journal articles planned.

25-KE-1 A PRELIMINARY VIEW OF TRENDS IN AGE, EDUCATION, AND INTELLIGENCE OF PROBLEM YOUTH

Purpose: To detect changes and trends in characteristics of problem youth, especially regarding age, education, and intelligence.
Subjects: All students admitted to the State Juvenile Home in Toledo, Iowa during the years 1957, 1962, and 1967.

Methods: On the basis of records available on file at the Juvenile Home, boys were divided into three groups based on I.Q. levels of 113 and above, 93 to 107, and below 88.
Findings: Living arrangement prior to commitment, marital status, educational level, and financial condition of parents remained unchanged over a 10-year period. Age, educational level, and I.Q. level of the problem youth all increased significantly, with a notable increase in the number of boys with above average I.Q.
Duration: Summer 1968-completed.
Investigator(s): Leon Vande Creek, M.A., Instructor in Psychology, Tri-State College, Angola, Ind. 46703.
Cooperating group(s): National Science Foundation.
Publications: Journal of Genetic Psychology, Fall 1970.

25-KE-2 AN ATTEMPT TO ESTABLISH, ON AN EMPIRICAL BASIS, A DESCRIPTIVE TYPOLOGY OF JUVENILE DELINQUENTS BY KELLY'S MATRICES METHOD

Purpose: To test the hypothesis that a juvenile delinquent population is not homogeneous, but composed of a certain number of specific "types" which call for a distinct explanation of criminogenesis, and thus for a distinct therapeutic treatment.
Subjects: Three groups of 15 boys each, ages 16 to 20, at Boscoville, Montreal; their teachers.
Methods: Boys within each group give descriptions of each other through a design inspired by Kelly's REP-test; descriptions are then submitted to an obverse factor analysis and to McQuitty's typal analysis. Descriptions of boys by their teachers are similarly processed, serving as a check.
Findings: Results indicate a phenomena of group-specific styles of interpersonal perception rather than the existence of clear-cut types.
Duration: April 1967-September 1969.
Investigator(s): Francois Belpaire, Ph.D., Psychologist, 3333 Queen Mary Rd., No. 245; and Yves Archambault, L.Ps., 1085 Berthier, Ville Jacques-Cartier, Montreal, Quebec, Canada.
Cooperating group(s): Canadian Department of Health.
Publications: Report available in French at Centre d'Orientation, 39 ouest, boul. Gouin, Montreal 357, Quebec, Canada; summary to be published.

25-KJ-1 MIDDLE CLASS JUVENILE DELINQUENCY

Purpose: To test the hypothesis that the structure of the community plays a more important part in the development of juvenile delinquency than does social class, per se.
Subjects: Residents of Los Alamos, N.M., a community relatively homogeneous in socioeconomic status in which the availability of living quarters is carefully controlled and education is a dominant value.
Methods: Through an examination of official records and self-administered questionnaires, factors such as living area, housing quality, father's education and position, and juvenile's academic and social position in the high school will be related to the dependent variable of official and self-reported juvenile delinquency.
Duration: October 1968-November 1969.
Investigator(s): Patrick C. Jobes, Ph.D. Candidate, Assistant Professor, University of Colorado, Boulder, Colo. 80302.
Cooperating group(s): National Science Foundation.
Publications: Articles submitted for publication.

25-KJ-2 RUNAWAYS

Purpose: To determine to whom and why children run away from home, and what the symptom of running away means to each individual; specifically, to attempt to answer the following questions: At what time, chronologically, did the patient perceive that all was not well in her environment, and to what extent is the running away a cry for help or attention? Is the symptom an alternative to despair or a preface to suicide? Who is personally valued by the runaway in the nuclear family? What are the characteristics of the individuals or peer groups toward whom the child runs?
Subjects: 50 runaway girls, ages 12 through 16, seen in the Boston Juvenile Court between July 1968 and December 1969; comparison group of high school students who are adapting well to their environment.
Methods: Study will evaluate the child's development, the family constellation and milieu, and the interaction between the child and her environment. Each child is seen a minimum of four hours, and parents are seen separately a minimum of two hours each. Particular psychological consideration includes the child's adaptability to personal trauma with emphasis placed on ego strength and weakness and her capacity to relate effectively to others. Some of the girls are selectively chosen for long-term psychotherapy. Management, disposition, and followup of cases emphasize team effort and the use of community agencies.
Duration: June 1968-December 1969.
Investigator(s): Peter R. Reilly, M.D., Resident in Psychiatry, Children's Hospital Medical Center and Judge Baker Guidance Center, and Teaching Fellow in Psychiatry, Harvard Medical School; Dexter M. Bullard, Jr., M.D., Senior Psychiatrist, Children's Hospital Medical Center and Judge Baker Guidance Center, and Associate in Psychiatry, Harvard Medical School; and Alice Fleming, M.D., Senior Psychiatrist, Judge Baker Guidance Center, Assistant in Psychiatry, Harvard Medical School, and Director, Boston Juvenile Court Clinic, Boston, Mass. 02115.
Publications: Publication planned.

25-KK-1 TEACH LAW TO REDUCE CRIME

Purpose: To measure the effectiveness of several curricula for teaching the provisions of the law and respect for the law in an attempt to reduce juvenile delinquency. It is hypothesized that if the law is to serve a regulatory function, its provisions must be known to the person it is meant to regulate, if punishment for crime is to serve as a deterrent, consequences of crime must be known to the person it is aimed at deterring, and that the benefits of lawful behavior must be known if they are to affect attitudes or behavior patterns.
Subjects: 2,000 seventh and eighth grade students per year in three junior high schools in Redwood City Elementary School District, California.
Methods: Initial procedures involved curriculum development, selection of treatment and control groups, and production of teacher workshop materials. After two years of teaching, pre- and posttesting attitudes, and correlating attitudes with juvenile probation, data will be measured and evaluated.
Duration: July 1968-July 1972.
Investigator(s): Roy W. Seagraves, J.D., Executive Director, Foundation of Research in Education, 873 Santa Cruz Ave., Menlo Park, Calif. 94025.
Cooperating group(s): San Mateo County, Redwood City, Calif.
Publications: Final report planned.

25-KK-2 INTERVENTION IN THE HOMES OF PREDELINQUENT BOYS

Purpose: To develop a technology designed to alter family and peer group interactions associated with out-of-control behavior in children; to identify the stimulus and reinforcement parameters which are associated with out-of-control behaviors in the classroom and the home.
Subjects: Boys, ages 4 to 14, who have been referred by school, mental health agencies, parents, psychiatrists, physicians, welfare agencies, and psychologists for out-of-control behaviors.
Methods: Direct observation in home and school to collect data on observable behaviors. Parents and teachers are instructed in social learning principles. These social agents, as well as peers and siblings, learn to provide social reinforcers in a contingent and systematic fashion. Results are determined by changes in rates of observable behavior in home and school, as well as by comparing rates with those of peers in the school. Followup observational data are collected for one year at monthly intervals. For theoretical research, normal families are compared with deviant families for aspects of reciprocity and coercion, i.e., how balanced or symmetrical the social systems are that produce deviant v. normal children.
Findings: Applied research findings indicate parents can learn to apply social learning principles effectively and efficiently. The success rate for school intervention is 100 percent and for home intervention 84 percent.
Duration: September 1968-June 1971.
Investigator(s): Gerald R. Patterson, Ph.D., Roberta S. Ray, and Joseph A. Cobb, Ph.D., Research Associates, Oregon Research Institute, P.O. Box 3196, Eugene, Ore. 97403.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: In Handbook of Psychotherapy and Behavior Change, A. E. Bergin and S. L. Garfield (Eds.). New York: John Wiley and Sons, 1969; in Control of Human Behavior, Vol. 2, R. Ulrich, T. Stachnik, and J. Mabry (Eds.). Glenview, Ill.: Scott, Foresman, 1969; in Behavior Modification in Clinical Psychology, C. Neuringer and J. Michael (Eds.). New York: Appleton-Century-Crofts, 1969; others.

25-KP-1 STUDY OF THE ADMINISTRATION OF JUSTICE RELATING TO JUVENILES

Purpose: To examine two official administrative methods of handling juvenile delinquents in two areas in Scotland.
Subjects: 300 juveniles reported to the police in Edinburgh, which deals with juveniles according to a modified adult system, and 300 juveniles reported to the police in A Division of Fife County, which has special juvenile courts.
Methods: Documents relating to the juveniles are studied to ascertain details of their offenses, how they came to light, their social characteristics, stage at which they were finally dealt with, and length of time the process(es) took.
Findings: There is a considerable difference in the proportions sent to court under the two systems.
Duration: 1967-Spring 1970.
Investigator(s): Judith A. Duncan, M.A., Lecturer and Research Officer, and Alison A. J. E. Arnott, M.A., Research Officer, Department of Criminal Law and Criminology, Old College, South Bridge, University of Edinburgh, Edinburgh 8, Scotland.
Cooperating group(s): Scottish Home and Health Department.

25-KP-2 POLICE STATION SETTLEMENT OF CASES OF DELINQUENTS IN DES MOINES, IOWA, 1956-1968

Purpose: To determine the number of delinquency cases disposed of by Police Juvenile Bureau and the number referred to Juvenile Court.
Subjects: All 2,144 cases coming to the attention of the Juvenile Bureau.
Methods: Case and statistical method.
Findings: Police settled 54.8 percent of the cases, and the remaining 45.2 percent were referred to Juvenile Court.
Duration: October 1968-May 1969.
Investigator(s): Walter A. Lunden, Ph.D., Professor of Sociology-Anthropology, Iowa State University, Ames, Iowa 50010. (Reported by Walter Hopkins, Professor, Central College, Pella, Iowa 50219.)
Cooperating group(s): Polk County Juvenile Court and Des Moines Police Department.
Publications: Report to Court and Police Department.

25-KP-3 A COMPARATIVE STUDY OF THE USE OF PROBATION OFFICERS AND COMMUNITY VOLUNTEERS AS COUNSELORS OF JUVENILE DELINQUENTS ON PROBATION

Purpose: To compare the effectiveness of probation officers and community volunteers in counseling juvenile probationers; to isolate the successful features of both methods; to contribute to the development of an optimum pattern for the use of both types of counselors; to determine the type of probationer who is amenable to either of these forms of treatment.
Subjects: Two groups of approximately 60 probationers each, matched for age, sex, number, seriousness, and types of offenses, socioeconomic status, dominant/minority group membership, and length of probation.
Methods: Each probationer remains in the program for one year, during which the experimental group is counseled by volunteer citizens and the control group, by probation officers. Pre- and posttests are administered. Relative success of the two methods is measured by a comparison of recidivism rates, adjustment in school, family, and community settings, and attitudes toward formal authority, world view, and self-concept. Nature, content, and frequency of interactions between probationers and counselors are measured, and peer group influence is indirectly measured as an extraneous variable, while the orientation of the counselor is observed as an intervening variable.
Duration: November 1969-August 1972.
Investigator(s): James C. Howell, Ph.D. Candidate, Department of Sociology, University of Colorado, Boulder, Colo. 80302.
Cooperating group(s): Adams County Juvenile Court, Brighton, Colo. 80601.

25-KR-1 THE COTTAGE-ORIENTED PROGRAM OF CULTURAL ENRICHMENT

Purpose: To develop a program to respond to the needs of bright institutionalized delinquent boys.
Subjects: Delinquent boys in grades 8 to 10, residing at the State Home for Boys in Jamesburg, N. J., who showed a desire to further their educations.
Methods: Boys ordinarily spent half a day in academic classes and half in work assignments such as farming and maintenance jobs. Those who expressed a desire to further their education rather than be given a work assignment were placed in a special cottage and participated in a program consisting of homework, individual study, reading, watching educational television programs, and other activities. Volunteer students from

Princeton University conducted extracurricular activities such as playing guitar, singing, and playing bridge, and served as models of college students with whom the boys could identify.
Duration: 1966-1968.
Investigator(s): B. Y. Cymbalisty, Ph.D., Director of Professional Services, State Home for Boys, Jamesburg, N. J. 08831.

25-KS-1 PSYCHOSOMATIC CLINICAL RESEARCH CENTER

Purpose: To develop a therapeutic approach to delinquent adolescents and their families.
Subjects: Hospitalized adolescents, ages 13 to 18, displaying delinquent behavior such as drug abuse, truancy, sexual acting out, or criminal behavior.
Methods: All adolescents requiring hospitalization were evaluated together with their families and only those who could benefit from family group psychotherapy were admitted. The adolescents received individual therapy plus family therapy and were reassessed every three months. Final evaluation is made at the end of the hospitalization.
Findings: Combination of family group psychotherapy and individual therapy for adolescents with acting out character disorders is highly desirable.
Duration: 1965-1971.
Investigator(s): Daniel Offer, M.D., Associate Director, Institute for Psychosomatic and Psychiatric Research and Training, Michael Reese Hospital, 2959 S. Ellis Ave., Chicago, Ill. 60616.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: To be submitted to appropriate professional journals.

25-KS-2 RECIDIVISM AND MATURATION OF FORMER JUVENILE DELINQUENTS

Purpose: To determine the role of maturation in the cluster of traits and factors that are related to the ultimate "settling down" of former juvenile offenders.
Subjects: 500 juvenile offenders of the study, Unraveling Juvenile Delinquency (New York: The Commonwealth Fund, 1950; Cambridge: Harvard University Press, 1951) followed to age 31 (see Delinquents and Nondelinquents in Perspective. Cambridge: Harvard University Press, 1968).
Methods: Cross-classification was made between 44 social factors, 67 traits, and 39 factors of the followup between the ages of 17 and 25, and 27 followup factors in the age span 25 to 31, with the maturation level at age 31.
Duration: September 1968-June 1970.
Investigator(s): Sheldon Glueck, Ph.D., and Eleanor Glueck, Ed.D., Codirectors, Special Research Project in Juvenile Delinquency, Harvard Law School, Cambridge, Mass. 02138.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Journal publication planned.

THE CHILD IN THE FAMILY

Family Relations

25-LA-1 RELATIONSHIPS BETWEEN HOME ENVIRONMENT VARIABLES AND STUDENT ACHIEVEMENT: PHASE II

Purpose: Phase I was designed to evaluate the effect of junior kindergarten attendance upon the achievement and development of children. (See Research Relating to Children, Bull. No. 18-0-4.) As a result of initial findings, Phase II is attempting to identify relationships between the home and school environments and the implications of such relationships for the school system.
Subjects: 721 parents of children who were part of the original sample of 8,695 enrolled in senior kindergarten in 1961, including 1,486 enrolled in junior kindergarten in 1960. With normal promotion, children were in fifth grade at beginning of Phase II.
Methods: During an hour-long interview with the parents, usually the mother, information was gathered relating to parental aspirations and expectations for child's educational and occupational achievement; knowledge of child's school activities; availability of books, newspapers, and television in the home; disciplinary procedures; and information concerning parental background, such as level of education, occupation, source and amount of income, and type of housing.
Duration: 1967-continuing.
Investigator(s): Patricia J. Crawford, M.A., Research Associate, and Edgar N. Wright, Ed.D., Director of Research, Board of Education, 155 College St., Toronto 130, Ontario, Canada.
Publications: Mimeographed reports on Phase I; technical note on Phase II, February 1969; publication of data analysis available December 1969.

25-LA-2 PARENT-CHILD RELATIONSHIPS AND ACHIEVEMENT LEVEL

Purpose: To determine the dynamics underlying academic achievement; specifically to test hypotheses that both under- and overachievers will more often than consistent achievers tell stories involving disturbed intraparental or intrafamilial relationships with resultant feelings of insecurity or lack of parental warmth, and that, excessive demands that the child achieve will less often characterize the stories of the consistent achievers than of the other two groups. The poor achievement of the underachiever is seen as the child's protest against the parent who demands much but gives so little: having given up trying to please the parent, the child withholds the very thing the parent demands--achievement. The overachiever, on the other hand, has not yet given up; indeed, the superior performance is seen as a way to win over parents who for one reason or another are displeased with the child.
Subjects: Eighth grade public school boys and girls, divided on the basis of aptitude and achievement test measures made available by the schools into groups of underachievers, overachievers, and those whose achievement is consistent with their aptitude level.
Methods: Materials for analysis consist of stories told by the child to two picture stimuli, a father-figure and child picture and a mother-figure and child picture, the child being of the same sex as subject.

Duration: June 1968-September 1969.
Investigator(s): Thelma G. Alper, Ph.D., Professor, and Susan K. Beardsley, Research Associate, Department of Psychology, Wellesley College, Wellesley, Mass. 02181.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-LA-3 TYPOLOGY OF FAMILIES

Purpose: To determine to what extent family solidarity and extrafamilial orientation are associated with religious and social class characteristics, and with the mobility aspirations and occupational values of older adolescent males.
Subjects: White, male college freshmen, ages 17 to 20, enrolled in seven colleges and universities in Ohio, mostly from the Cleveland area.
Methods: Survey research design. Questionnaire was group-administered to 550 freshman students. The instrument elicited data about the respondents' family situation, educational and career aspirations, and certain background characteristics. Relevant family variables are summarized by way of a typology.
Findings: Religion and social class are related to family type (based on the family characteristics mentioned above), and to aspirations, but family type is not related to aspirations.
Duration: September 1967-January 1970.
Investigator(s): Mark Lefton, Ph.D., Professor and Acting Chairman, and Gerald S. Berman, Ph.D. Candidate, Department of Sociology, Case Western Reserve University, Cleveland, Ohio 44106.
Cooperating group(s): National Science Foundation.
Publications: Freiberger Library, Case Western Reserve University, Cleveland, Ohio; also Dissertation Abstracts.

25-LC-1 BIRTH ORDER, SEX OF SIBLING, AND ACHIEVEMENT ORIENTATION

Purpose: To investigate the relationship of birth order, family size, sex of siblings, and social class to such variables as achievement orientation, intelligence (as measured by a reading test), fatalism, work orientation, etc.
Subjects: A national sample of about 2,500 secondary public school students.
Methods: The total sample will be divided into 34 subgroups on the basis of birth order, family size (up to three-child families only), and sex of respondent and his sibling(s). Exploratory analyses will be controlled for social class of respondent.
Duration: May-September 1969.
Investigator(s): David C. Glass, Ph.D., Professor of Psychology, New York University; Orville G. Brim, Jr., Ph.D., President, Russell Sage Foundation; and John Neulinger, Ph.D., Assistant Professor of Psychology, City College, City University of New York, New York, N. Y. 10031.

25-LF-1 THE "PRISONER'S DILEMMA" AND PARENTAL INTERACTION

Purpose: To explore the usefulness of the Prisoner's Dilemma game, and variations of it, in the study of interaction between family members.

Subjects: 60 pairs of child guidance clinic parents and 60 pairs of nonclinic parents from PTA's.
Methods: Each parental pair plays one of four forms of the Prisoner's Dilemma, and each parent completes the Primary Communication Questionnaire and a questionnaire aimed at assessing marital satisfaction. Data are analyzed in terms of sample difference, form of game differences, and Prisoner's Dilemma response correlation with questionnaire data.
Duration: August 1968-November 1969.
Investigator(s): David C. Speer, Ph.D., Research Psychologist, Amherst H. Wilder Foundation, Child Guidance Clinic, 670 Marshall, St. Paul, Minn. 55104.
Publications: Journal of Consulting and Clinical Psychology or Journal of Personality and Social Psychology.

25-LF-2 THE ADAPTATION OF ADOLESCENTS TO PATERNAL ALCOHOLISM

Purpose: To determine, study, and describe the adaptational strategies by which adolescents adjust to paternal alcoholism.
Subjects: 120 intact families with at least one adolescent, who have applied to a family service agency for help with a disturbance in family functioning. Paternal drinking is among the problems involved in each of the families.
Methods: In each family a triad consisting of father, mother, and one adolescent is studied diagnostically. Study consists of individual interviews with the applying parent and the adolescent, a home visit with the entire family, a school visit, psychological and psychiatric evaluations of the adolescent, and an observed family triad interview.
Duration: June 1967-May 1971.
Investigator(s): Vera L. Lindbeck, M.S.S., Project Director, Family Service of the Cincinnati Area, 2343 Auburn Ave., Cincinnati, Ohio 45319.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-LF-3 FAMILIAL ALIGNMENT PATTERNS

Purpose: To ascertain the various patterns of alignment existing in families and their relationship to an adolescent member's emotional health.
Subjects: 20 family groups composed of father, mother, and adolescent; 10 adolescents were normal while the remainder were diagnosed as emotionally disturbed, but not psychotic or brain-damaged.
Methods: Family members completed the Revealed Differences Questionnaire and then discussed issues on which they disagreed. Discussions were taped and then analyzed according to two rating procedures as to alignments exhibited between family members.
Findings: Three-way alignment between father, mother, and adolescent occurred most often in normal families, while families with a disturbed child usually demonstrated a two-way alignment between father and mother. Only a few cases of alignment between one of the parents and the adolescent were found in both the normal and clinic families.
Duration: October 1968-October 1969.
Investigator(s): Antoinette Sackett, B.A., Research Assistant, Institute for Juvenile Research, 232 E. Ohio St., Chicago, Ill. 60611. (Reported by Roberta Hego, Junior Research Associate, Institute for Juvenile Research.)
Publications: Article planned.

Childrearing

25-MB-1 MOTHERS' CONTROL TECHNIQUES AND RESISTANCE TO TEMPTATION IN YOUNG CHILDREN

Purpose: To study the techniques used by mothers to prevent their children from touching a forbidden object, and the relationship between the techniques used and the child's resistance to temptation when left alone with the object.
Subjects: 20 boys and 20 girls, ages one and one-half to two and one-half; their mothers.
Methods: Mothers and children were brought into a playroom in the center of which a microphone hung at about the child's height. Mothers were told that the child should not touch the microphone and then both were left to play. After five minutes the mother was asked to leave the room for a few minutes while child was observed playing alone. Measures included recording the techniques used by the mother to prevent the child from playing with the microphone and the reactions of the child when left alone with the microphone. An interview with the mother was used to determine her view of the techniques she used in this type of situation.
Duration: June-August 1969.
Investigator(s): Freda Rebelsky, Ph.D., Associate Professor of Psychology, and Director of Doctoral Program in Developmental Psychology, Boston University, Boston, Mass. 02215.
Cooperating group(s): U. S. Office of Economic Opportunity.
Publications: Plan to publish in Child Development or Developmental Psychology.

25-MB-2 TEENAGE SMOKING, ALCOHOL CONSUMPTION, AND DRUG ABUSE BEHAVIOR AS RELATED TO PERCEPTIONS OF THEIR PARENTS' CHILDHOOD DISCIPLINARY PRACTICES

Purpose: To determine the relationship, if any, between teenagers' perceptions of their parents' behavior toward them when they were children and their current behavior in the areas of smoking, drinking, and glue sniffing and other drug abuse.
Subjects: 600 suburban and 270 urban children in grades seven through nine.
Methods: Each child completed an anonymous questionnaire regarding present and past behavior in the areas of cigarette smoking, alcohol consumption, inhalation of toluene, and consumption of barbiturates and other drugs, and a revised version of the Parent-Child Relations Questionnaire. The latter scale is intended to measure the perception the child has of the behavior of the parent of the same sex toward him or her in childhood in such areas as reward and punishment, love, neglect, rejection, demands, and protection.
Duration: June 1968-January 1970.
Investigator(s): Jacob Schonfield, Ph.D., Associate Professor of Psychology, Department of Preventive Medicine and Rehabilitation, University of Maryland Medical School, Baltimore, Md. 21201.
Cooperating group(s): Baltimore City and Howard County, Md. School Systems.
Publications: Paper to be submitted to journal dealing with children or adolescents if positive findings result.

25-MC-1 HOME START

Purpose: To assess the impact of intervention by community volunteers on parent-child interaction; specifically, to enable parents, and especially the mothers, to become more stimulating, purposive, and successful teachers of their children.
Subjects: 75 children, ages two to five, approximately 60 percent of whom are Negro, residing in four "target" attendance areas, and entering kindergarten in September 1971.
Methods: A preschool inventory consisting of language, visual-motor, concepts, and memory tests is employed to identify the specific early learning experiences a child requires. Test results are discussed with volunteers who then provide opportunities and guidelines to promote learning in the indicated areas. Special attention is given to latent learning. The community volunteers participate weekly with the mother in discussion of the child's development and map out a course of enrichment for the coming week. Suggestions and models are provided for fostering language patterns within the home which are conducive to later learning success. On the basis of test results, specific toys which will promote perceptual growth are placed in the home.
Findings: Early cognitive growth seems characterized by an important interaction of perception and language growth, which apparently influence and reinforce one another. Effective preschool enrichment must include noneducational resources.
Duration: June 1968-June 1971.
Investigator(s): Ralph Scott, Ph.D., Director, Educational Clinic, University of Northern Iowa, Cedar Falls, Iowa 50613.
Cooperating group(s): Community organizations; U. S. Department of Health, Education, and Welfare.
Publications: Home Start; Head Start Before Home Start?; Perceptual Readiness as a Predictor of Success in Reading.

25-MC-2 KNOWLEDGE PLUS INTUITION IN CHILD DEVELOPMENT

Purpose: To attempt to cultivate a feeling for child growth and development in college students and young mothers at the same time that they are obtaining cognitive knowledge on the subject from classroom discussions, lectures, etc.
Methods: Each student studies one infant throughout the year for two hours weekly in Briarcliff College's Developmental Psychology Laboratory. During this time the student observes and reports all the infant's activity in his behavior repertoire. The student analyzes video tapes which have recorded her work with the infant, giving particular attention to her sensitivity to those behavior signals displayed by the infant which indicate the emergence of new functions.
Findings: Personal reports of students who have participated indicate an increase in self-confidence in the child development field.
Duration: September 1968-continuing.
Investigator(s): Myrtle McGraw, Ph.D., Professor, F. Rust, Lecturer, Langbourne Rust and P. Guffey, Instructors, Department of Psychology, Briarcliff College, Briarcliff Manor, N. Y. 10510.
Cooperating group(s): Universal Education Company; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: To be submitted for publication.

SOCIOECONOMIC AND CULTURAL FACTORS

25-NA-1 THE RELATIONSHIP BETWEEN POVERTY AND CLOTHING AS SOCIAL STIGMA

Purpose: To investigate the relationship between lower social class and clothing awareness, clothing deprivation, and actual and ideal dress for selected social situations; to develop minimum clothing standards for subjects based upon their dress norms for selected social situations.
Subjects: Initially, lower class adolescents and small children.
Methods: Questionnaires and/or projective techniques are used to obtain sociometric information, which is analyzed using a reciprocity technique, social class data to satisfy an analysis using Warner's Index of Status Characteristics, and clothing information. Variables manipulated along with clothing variables include rural v. urban environment, age and sex, social situations, ethnicity, and school, family, and peer group socialization agencies.
Duration: 1968-1972.
Investigator(s): Eleanor Kelley, Ph.D., Associate Professor of Home Economics, Louisiana State University, Baton Rouge, La. 70803.
Cooperating group(s): U. S. Department of Agriculture.
Publications: Article submitted to Journal of Home Economics; future articles planned.

25-NA-2 WEST SIDE CATCHMENT AREA DEMOGRAPHIC STUDY

Purpose: To study the West Side Catchment Area of New York City, and to provide detailed knowledge of its demography, epidemiology, social structure, community resources, etc; to attempt a systematic analysis and classification or typology of populations, programs, and personnel.
Subjects: Population of West Side of Manhattan.
Methods: Epidemiological and demographic data will be obtained from the 1960 census and more recent studies; other community-relevant information will be obtained by special survey and participant observation in selected subareas of the catchment area.
Duration: September 1968-continuing.
Investigator(s): David C. Twain, Ph.D., Director, Research and Development Center, Jewish Board of Guardians, 120 W. 57th St., New York, N. Y. 10019.
Cooperating group(s): Roosevelt Hospital.
Publications: Two "Fact Books" are being planned: one will contain demographic, census-type data about the West Side area; the second will provide information about the resources of the area, i.e., schools, agencies, and other institutions, both public and private, as well as a listing of key people in the community.

25-NB-1 RURAL INDUSTRIAL DEVELOPMENT PROJECT

Purpose: To assess the effects of industrialization on students' vocational and educational aspirations, values, and attitudes toward self and others.
Subjects: Approximately 800 high school students of all grade levels from two high schools.
Methods: The survey instrument will obtain data regarding students' vocational and educational aspirations, values, and attitudes toward self and others.
Duration: September 1966-June 1972.
Investigator(s): Gene F. Summers, Ph.D., Assistant Professor of Sociology, University of Illinois, Urbana, Ill. 61801; and John P. Clark, Ph.D., Associate Professor of Sociology, University of Minnesota, Minneapolis, Minn. 55455.
Cooperating group(s): University of Illinois Agricultural Experiment Station; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Rural Sociology, in press, 1969; reports on 1966-1968 surveys available in 1969; additional reports and journal publications planned.

25-NB-2 INFLUENCES ON OCCUPATIONAL GOALS OF YOUNG PEOPLE FROM THREE SUBCULTURES IN THE SOUTH

Purpose: To determine the relationship between selected family characteristics and occupational goals of youth, and of their mothers for them, in the Appalachian white and the southern urban and rural Negro; to test the effectiveness of selected methods of implementing change in mothers' information and attitudes, which, in turn, should raise the occupational aspirations of the children.
Subjects: 100 mother-child pairs from each of the three subcultures.
Methods: Samples were chosen from four elementary schools in cities with over 40,000 population and in rural areas of less than 2,500. Mother and child are interviewed individually. Parent education programs will be developed and tested.
Duration: July 1967-June 1972.
Investigator(s): Ann Caudle Barton, Ph.D., Associate Professor of Family Life, Auburn University School of Home Economics, Auburn, Ala. 36830.
Cooperating group(s): This is a regional project and is also being conducted by Agricultural Experiment Stations at the University of Kentucky, University of North Carolina, Clemson University in South Carolina, and probably others; U. S. Department of Agriculture.
Publications: Regional manuscript planned for 1970.

25-NB-3 EDUCATIONAL, FAMILIAL, AND PEER GROUP INFLUENCES ON OCCUPATIONAL ACHIEVEMENT

Purpose: To determine the shifting influence of selected variables on occupational achievement in males; specifically, to determine the influence of family socioeconomic status, parental values, behavior and personal characteristics, peer characteristics, academic experience, and occupational expectations and placement.
Subjects: All males in grades 6, 9, and 12 chosen from schools in one city out of nine which came close to the median on family income, and percentages of white collar workers, unemployment, private school

attendance, population between ages 18 and 64, and nonwhite population; additional group of males from the same city who have been out of school for up to six years.
Methods: In selection of schools to be studied, consideration was given to academic reputations as represented by dropout rates, percentage of graduates going on to college, etc. The three groups still in school are given a questionnaire within that setting, while those out of school are sampled by mailed questionnaires supplemented with followup procedures and, when expedient, personal contact. One hundred mothers and fathers of the boys are sampled for each race and for each group of school boys. Data from boys and their peers, parents, and school records are treated with multivariate analysis techniques to evaluate several models of the relationships among the influences studied in the lives of both Negro and white youth.
Duration: June 1968-August 1971.
Investigator(s): Alan C. Kerckhoff, Ph.D., Professor of Sociology, Duke University, Durham, N. C. 27706.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Plan to publish a series of articles or a monograph in 1971 or 1972.

25-NC-1 A CROSS-CULTURAL STUDY OF THE DEVELOPMENT OF POLITICAL ATTITUDES IN CHILDREN

Purpose: To study the development of political attitudes in Norwegian children; to examine political attitude development in the context of Piaget's developmental theory.
Subjects: Sample of 200 Norwegian children controlled for sex, socio-economic background, geographic distribution, and intelligence.
Methods: Investigation is essentially a replica of a similar study being conducted with American children. Children are studied in individual interviews and through results of paper and pencil tests administered in classrooms. An adult norm is established through comparison of the children's ratings with those of their teachers and, in some cases, their parents. Results will be discussed in terms of the comparison of American and Norwegian children, taking their respective political milieus into consideration. The relevance of Piaget's theory will also be evaluated.
Duration: April 1969-April 1970.
Investigator(s): Anne-Lise L. Lafferty, Ph.D., Assistant Professor of Psychiatry and Psychology, University of Florida School of Medicine, Gainesville, Fla. 32601. (Present address: Labben 17, Oslo 7, Norway.)
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-NC-2 BLACK POWER AND SELF: A STUDY OF STUDENTS' PERCEPTIONS

Purpose: To study black junior high school students' perceptions of Black Power and the relationship of these perceptions to social class, self-image, self-appraisal, and community evaluation.
Subjects: 149 seventh and eighth grade boys and girls, ages 11 to 16, in an inner city school.
Methods: The subjects filled out a research form which included personal information, parents' social class position, open-ended questions related to student's perceptions of Black Power, and rating scales to evaluate student self-appraisal, self-image, and semantic differential. The

analysis schema is based upon social class and sex classification and the relationships between these classifications and the open-ended question and rating scale data. Data analysis techniques include categorization of open-ended questions, reliability checks, and computer analysis of rating scale responses.
Findings: Preliminary data indicate that there does not appear to be any difference among social class levels in the students' views on Black Power. However, more girls than boys have associated the feeling of power when defining what Black Power means to them, but in all groups a majority felt Black Power will not change anything in their lives.
Duration: December 1968-September 1969.
Investigator(s): Daniel U. Levine, Ph.D., Associate Professor, and Director, and Joseph P. Caliguri, Ph.D., Associate Professor, Center for the Study of Metropolitan Problems in Education, University of Missouri, Kansas City, Mo. 64110.
Cooperating group(s): Kansas City junior high school teachers.
Publications: Research reports will be published under the auspices of the Center for the Study of Metropolitan Problems, University of Missouri at Kansas City. Other publication plans include development of articles from the research reports for urban education scholarly or general audience educational magazines.

25-NC-3 EXAMINING ATTITUDINAL, PERCEPTUAL, AND VALUATIONAL DISPARITY BETWEEN POLICE, TEACHERS, AND JUNIOR HIGH SCHOOL STUDENTS

Purpose: To evaluate the effectiveness of an educational experience that attempts to form and change attitudes, values, and perception of the community and the system of criminal justice; specifically, to test the hypotheses that (1) there will be more divergence of attitudes between police, teachers, and students before the citizenship course than after; (2) students experiencing sustained contact with the police instructors will change their attitudes more favorably toward the police, courts, and the law; (3) student attitudes will be more polarized after the program; and (4) there will be no significant difference between middle and lower class students' attitudes toward the police, courts, and the law.
Subjects: Junior high school students from middle and lower class families.
Methods: Evaluation of program's effectiveness was based on responses to attitude scales by participating students, teachers, and police officers.
Duration: December 1968-September 1969.
Investigator(s): Martin G. Miller, M.S., Instructor, School of Police Administration and Public Safety, Michigan State University, E. Lansing, Mich. 48823.
Publications: Final report: An Examination of Attitudes and Perceptions Toward the Compliance System.

25-NC-4 A CROSS-NATIONAL STUDY OF THE RELATIVE INFLUENCE OF THE SCHOOL IN CIVIC EDUCATION--A CAUSAL ANALYSIS

Purpose: To study the relationships among school, family, work group participation, and civic efficacy or political participation.
Methods: Data from a cross-cultural study of the United States, Great Britain, Germany, Italy, and Mexico were adjusted for urbanization. Guttmann or cumulative scales were then developed to build participation indexes for each nation, with assignment of individual scores to members within each nation. Statistical distributions of individual scores

assigned were validated with factor analysis techniques, and methods of path coefficients employed using the indexes derived to construct and test mathematical models of civic socialization.
Duration: June 1968-June 1969.
Investigator(s): Kenneth P. Langton, Ph.D., Associate Professor, Department of Political Science, University of Michigan, Ann Arbor, Mich. 48104.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Book, Political Socialization and Development, to be published.

25-NE-1 AN ANTHROPOLOGICAL STUDY OF SOCIAL DISABILITY FROM EDUCATIONAL PROBLEMS OF PUERTO RICAN YOUTH IN CHICAGO

Purpose: To investigate the sources and kinds of disability in Puerto Rican youths that arise from failures in and problems with the urban schools.
Subjects: Four small cohorts of urban Puerto Rican children, two in high school and two in the seventh and eighth grades.
Methods: Centers of anthropological study are nuclear social networks comprised of each child and his teachers and closest peers. Researchers in schools and neighborhood centers observe and interview and, in some cases, participate in the children's households in order to determine the behavior and cognitive interrelationships among the component persons of each nuclear network with respect to educational problems and social disabilities. Attention is focused on conditions generated from various noncomplementary factors between culture patterns of household and school. Observed conditions will be related to the degree of parental and household acculturation to North American customs as well as to the ethnic composition of the children's schools and their extraschool peer relations.
Duration: September 1968-August 1970.
Investigator(s): Jacquetta Hill Burnett, Ph.D., Associate Professor and Anthropologist, Bureau of Educational Research, University of Illinois, Urbana, Ill. 61801.
Cooperating group(s): Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Final report to Social and Rehabilitation Service; publication planned.

25-NE-2 THE URBAN NEGRO AMERICAN IN THE TWENTIETH CENTURY

Purpose: To study the historic roots of the current urban crisis in terms of Negro transplantation to the city; to determine whether comparisons between the experiences of European immigrants and those of the Negroes are valid.
Methods: Research includes study of such areas as: reasons for the Negroes' move out of the rural South into the southern urban centers and then to the northern cities, processes by which Negro transplantation altered the American city and by which urban centers transformed American Negro life in the twentieth century, origins and development of residential segregation, the Negro experience in urban schools, and the impact of urbanization on the Negro family. Urbanization of European immigrants is also being examined.
Duration: January 1968-not reported.
Investigator(s): Jack Meltzer, M.A., Director, and William C. Cohen, Ph.D., Research Associate, Center for Urban Studies; and John H. Franklin, Ph.D., Richard C. Wade, Ph.D., and Arthur C. Mann, Ph.D., Professors, Department of History, University of Chicago, Chicago, Ill. 60637.

Cooperating group(s): Social Security Administration and Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: Several volumes and monographs planned.

25-NG-1 STUDIES OF CHILDREARING, CULTURAL BACKGROUNDS, AND PERSONALITY

Purpose: To study childrearing practices cross-culturally in order to determine the effects on later personality development.
Subjects: Anthropological cross-cultural samples and field reports.
Methods: Literature survey, transcultural studies, and analysis of field reports where the data are more complete; also, Human Relations Area Files of State University of New York at Buffalo.
Duration: 1966-continuing.
Investigator(s): Marvin K. Opler, Ph.D., Professor and Chairman, Anthropology Department, and Professor of Social Psychiatry, State University of New York, Buffalo, N. Y. 14226.
Publications: In Modern Perspectives in International Child Psychiatry, J. G. Howells (Ed.). Edinburgh and London: Oliver and Boyd, 292-320, 1969; and in Medical Aspects of Human Sexuality 3:2:14-21, February 1969.

25-NG-2 FAMILY AND OCCUPATION IN ITALY

Purpose: To study the relationships between social class and occupation to various aspects of family life in Turin, Italy, and, by cross-national comparison, to determine if these relationships appear in other societies.
Subjects: Representative sample of parents of fifth grade children, including 600 mother-father pairs.
Methods: Interview.
Findings: Middle class parents are more expressive of their affection than working class, particularly middle class mothers of sons. There is evidence that parents' expressiveness is put forth in order to achieve compliance, and that it is also affected by occupational experiences.
Duration: 1963-1969.
Investigator(s): Leonard I. Pearlin, Ph.D., Chief, Section on Social Process, Laboratory of Socio-environmental Studies, National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare, Bethesda, Md. 20014.
Cooperating group(s): Adriano Olivetti Foundation.
Publications: Social Structure and Family: A Comparative Study of Turinese Family Life, to be published in late 1969 or 1970.

25-NG-3 CHARACTER AND SOCIALIZATION IN RURAL THAILAND

Purpose: To investigate childrearing practices and personality development in a village in rural Thailand; to study the expression of personality elements in social relationships and projective institutions, especially religion.
Subjects: Families in the village of Banoi, Province of Ayuthaya, Thailand.
Methods: Research design is based partially on socialization studies done in a village in Thailand's Central Plain. Three- to six-hour interviews are conducted with 35 mothers on childrearing practices; 15 fathers are interviewed for a shorter time on the same topic. Families with at

least two children between infancy and adolescence were observed, and actions of the children in family and peer group situations were recorded, resulting in about 400 observations.
Duration: December 1962-1970.
Investigator(s): Steven Piker, Ph.D., Assistant Professor of Anthropology, Swarthmore College, Swarthmore, Pa. 19081.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Preliminary findings in Ph.D. dissertation, University of Washington, Seattle, Wash., 1964; monograph in preparation.

25-NG-4 INDIVIDUAL DIFFERENCES IN SURVIVAL AND REPRODUCTION AMONG OLD COLONY MENNONITES IN MEXICO

Purpose: To relate vital statistics with family histories in an agricultural society and to detect selective forces that favor some patterns of social and economic behavior over others, in terms of survival and reproduction.
Subjects: German-speaking Mennonites in the "Manitoba Plan" near Chihuahua, Mexico, numbering about 15,000 people.
Methods: The original plan called for a population census and survey to be followed by psychological testing of whole families and long-term study of social, economic, and vital events in these families. The subjects resisted the research, and it had to be stopped after about one-third of the population had been surveyed. The survey in conjunction with church and local records will yield some relevant data.
Findings: Fertility in this population is almost as high as in the Hutterites, although there is virtually no communal economic structure to carry the burden of large families.
Duration: Summer 1966-1972.
Investigator(s): Gordon Allen, M.D., Geneticist, Laboratory of Socio-environmental Studies, National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare, Bethesda, Md. 20014; and Calvin W. Redekop, Ph.D., Professor of Sociology and Anthropology, Goshen College, Goshen, Ind. 46526.
Cooperating group(s): The Population Council.
Publications: Eugenics Quarterly 14:103-111, 1967.

25-NG-5 A COMPARISON OF LOW INCOME FATHER-ABSENT AND FATHER-PRESENT CHILDREN'S PERCEPTIONS OF ADULT ROLES IN JAPAN AND THE UNITED STATES

Purpose: To compare low income children from father-absent homes with those from low income father-present homes to determine whether father absence affects their knowledge of which sex conventionally performs adult roles.
Subjects: 40 father-absent and 40 father-present Japanese children, ages four to six; 113 father-absent and 164 father-present southern American children, ages four to six.
Methods: Structured interview, with comparison of findings from the two countries.
Findings: U. S. data show few differences in the knowledge of father-absent and father-present children, although girls more often than boys tend to see the mother as the main earner in the family.
Duration: January 1968-January 1970.
Investigator(s): Joan Aldous, Ph.D., Associate Professor of Sociology and Family Studies, University of Minnesota, Minneapolis, Minn. 55455; and Dr. Takeji Kamiko, Osaka City University, Japan.

Cooperating group(s): Office of Education; and National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Report to the Demonstration and Research Center for Early Education, George Peabody College, Nashville, Tenn.

25-NG-6 PSYCHOLINGUISTIC ABILITIES OF PAPAGO INDIAN CHILDREN

Purpose: To investigate the psycholinguistic abilities of Papago Indian school children.
Subjects: Utilizing a stratified random sample, 40 first graders and 40 third graders were drawn from a 70 mile radius of Tucson, Ariz. An equal number were in attendance at segregated and integrated schools.
Methods: The 1968 edition of the Illinois Test of Psycholinguistic Abilities was administered to all subjects. Data obtained were analyzed by a comparison of mean scaled scores using t tests for paired comparisons to answer the stated hypotheses. A three-way analysis of variance was also employed to evaluate the interaction of children, grade, and school. The analysis was conducted by use of a CDC 6400 computer.
Findings: Findings supported the Papagos' psycholinguistic trends of poorer comparison with standardized group, better performance by the school integrated group, and the ineffective aspects of cumulative education. However, individual pattern analysis revealed considerable variability.
Duration: June 1968-May 1969.
Investigator(s): Thomas P. Lombardi, Ed.D., Assistant Professor, University of Arizona, Tucson, Ariz. 85721.
Cooperating group(s): Tucson School District 1; Tucson Catholic Mission Schools; Bureau of Indian Affairs, U. S. Department of the Interior.
Publications: Publication pending in Exceptional Children; entire study available from Dissertation Abstracts, University of Arizona Library, and from author.

25-NG-7 EDUCATION AND POPULATION

Purpose: To investigate the interaction of the education and population processes.
Methods: For present purposes, the educational process refers to formal and informal learning and training as it occurs mainly during the principal school years and also before and after these years. The population process is meant to include, among other things, the level of and changes in fertility, mortality, migrations, and population composition and characteristics. Both processes are understood as dynamic and comprehensive systems. Research involves the interaction of the two processes and takes into consideration other components of societal change as they interrelate with education and population.
Duration: 1968-1971.
Investigator(s): Dr. Helmut V. Muhsam, Hebrew University, Jerusalem, Israel; F. Edding, Max Planck Institut fuer Bildungsforschung, Berlin, Germany; G. Fougstedt, Svenska Handelshogskolan, Helsinki, Finland; A. Girard, Institut National d'Etudes Demographiques, Paris, France; V. Serdar, University of Zagreb, Zagreb, Yugoslavia; and Charles B. Nam, Ph.D., Department of Sociology, Florida State University, Tallahassee, Fla. 32306.
Cooperating group(s): International Union for the Scientific Study of Population, Liege, Belgium.
Publications: Plan to publish in book form.

EDUCATIONAL FACTORS AND SERVICES

General

25-OA-1 NATIONAL STUDY OF AMERICAN INDIAN EDUCATION

Purpose: To conduct a nationwide study on the education of American Indian children in order to: (1) provide Indian leadership and education officials with information concerning the educational needs of Indian pupils and the attitudes and expectancies of Indian people regarding education, and (2) provide government agencies with information to help them allocate funds for demonstration and research in Indian education; to summarize and evaluate the results of past and current research in Indian education.
Subjects: Indian pupils and their families in 25 to 30 communities chosen to represent the major tribal groups and the various types of schools.
Methods: Data describing the status of Indian education are drawn from existing sources while field workers simultaneously carry out an intensive study of pupils and their families. Study is being planned and conducted with the aid of an advisory committee consisting of Indians, social scientists, and educators.
Duration: February 1968-December 1970.
Investigator(s): Robert J. Havighurst, Ph.D., Professor of Education and Human Development, University of Chicago, Chicago, Ill. 60637.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Comprehensive report and several monographs planned for 1970 and 1971.

25-OA-2 LONGITUDINAL STUDY OF NEWLY FORMED CENTRALIZED RURAL SCHOOL DISTRICTS

Purpose: To determine whether or not school district reorganization is worthwhile in terms of time, effort, and expenditure of funds and to study the effects of such reorganization on educational outcomes of the school; to determine characteristic differences between 4-H Club members and nonmembers and the effectiveness of the 4-H program in achieving stated objectives.
Subjects: One first grade class in each of five reorganized and five nonreorganized Wisconsin community school districts.
Methods: Children were followed from grade one through at least age 23; those involved in a replication study begun five years later were followed for the same period. In addition to a comparison of pupils in the two groups of school districts, children who joined and stayed in 4-H Clubs for a number of years were compared with those who joined and dropped out early and those who never joined.
Duration: 1949-1969.
Investigator(s): Burton W. Kreitlow, Ph.D., Professor of Adult Education, University of Wisconsin, Madison, Wis. 53706.
Cooperating group(s): Wisconsin State Government.
Publications: Final report in preparation.

25-OA-3 THE BALTIMORE COUNTY HIGH SCHOOL GRADUATE--A FOLLOWUP STUDY

Purpose: To gain and share knowledge about the nature and characteristics of Baltimore County public school graduates in their various post high school environments; to study the relationships between high school preparation and post high school activities, needs, and adjustments; to provide means for the evaluation of guidance services and to establish a factual basis for further development of the program; to provide an additional basis for countywide curriculum evaluation and change.
Subjects: 1967 graduates.
Methods: Questionnaires.
Duration: 1966-1972.
Investigator(s): Emma E. Williams, Guidance Coordinator, Charles Sussman, and Donald E. McBrien, Guidance Supervisors, Dr. George Gabriel, Director, Educational Research, Harold McGraw, Research Assistant, and John Seebold, Director, Child Accounting, Board of Education of Baltimore County, Allegheny Annex, Towson, Md. 21204.
Cooperating group(s): Maryland Department of Education.
Publications: Publication, June 1969.

25-OB-1 THE EDUCATIONALLY DISADVANTAGED ELEMENTARY SCHOOL CHILD--ANXIETY REDUCTION AND BEHAVIOR CHANGE THROUGH PUBLIC COMMITMENT AND COUNSELING

Purpose: To study the effects of counseling and public commitment on positive behavior change.
Subjects: 60 fifth and sixth grade students from Carbondale, Ill. area elementary schools, constituting the upper and lower quartiles of a larger group tested with the Test Anxiety Scale for Children.
Methods: Research involved public commitment as it related to school anxiety and behavior problems, school behaviors of committing students, and interpersonal relationships between teachers and pupils and among students. Students were randomly assigned to treatment groups composed of children who received teacher guidance only, were positively committed and counseled, were noncommitted and counseled, or received no treatment. Subjects in the counseled groups were assigned to two counselors, with no more than 10 subjects assigned to each treatment. Pre- and posttests consisting of the Behavior Rating Scale, Teacher-Pupil Relationship Scale, and a sociometric test were administered. After treatment period of 12 weeks, pre- and posttest results were compared and treated with analysis of variance techniques.
Duration: 1968-1969.
Investigator(s): G. Roy Mayer, Ed.D., Assistant Professor, Department of Guidance, California State College, Los Angeles, Calif. 90032.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: To be submitted to Elementary School Guidance and Counseling Journal.

25-OE-1 EDUCATIONAL AND OCCUPATIONAL ORIENTATION OF NEGRO MALE YOUTH IN THE MISSISSIPPI DELTA

Purpose: To study Mississippi high school seniors in terms of selected factors of occupational and educational orientation in order to provide educators with information needed to improve the general and vocational education offered these students.
Subjects: All twelfth grade Negro male students enrolled in the largest high school of each of the 11 counties in the Mississippi Delta area.

Methods: Vocational interests of boys were identified, with particular attention to occupational clustering, rural-urban differences, and differences at varying levels of scholastic aptitude. In assessing various kinds of aptitudes of youth, levels of general scholastic aptitude, clustering of special abilities, and rural-urban differences were noted. Levels of occupational and educational aspiration were also determined, noting inconsistencies, if any, with aptitudes, rural-urban differences, and differences at varying levels of scholastic aptitude.
Duration: September 1967-February 1969.
Investigator(s): William C. Boykin, Ph.D., Head Teacher Trainer, Agricultural Education, Alcorn A. & M. College, Lorman, Miss. 39096.
Cooperating group(s): Research Coordinating Council, Mississippi State University; Vocational Education Division and Research Coordinating Committee, Mississippi Department of Vocational and Technical Education; Office of Education, U. S. Department of Health, Education, and Welfare.

25-OF-1 AN INVESTIGATION OF THE PSYCHOLOGICAL AND SOCIAL FACTORS AFFECTING THE EDUCATIONAL ACHIEVEMENT OF SEMINOLE INDIAN CHILDREN

Purpose: To provide data upon which to plan future educational and social services for the children on the Big Cypress Reservation in Florida.
Subjects: The 52 Seminole children and their families on the Big Cypress Reservation; Seminole children in other reservations are also tested for comparative data.
Methods: A series of psychological and achievement tests are administered to Seminole children in both public and Federal schools to determine their general intellectual ability and grade level achievement. Inter- and intragroup norms will be established. These data will be supplemented with the results of an in-the-home interview with Seminole Indian parents and their response to a survey instrument which covers all vital aspects of the child's home life. In addition, speech and hearing screening is provided.
Findings: Home interviews show an appalling picture of poverty in the home and a general disregard for the physical welfare of the children.
Duration: March-August 1969.
Investigator(s): Harry A. Kersey, Jr., Ph.D., Associate Professor of Education, William P. Dorne, Ph.D., Professor of Education, and Thomas Prutsman, Ph.D., Assistant Professor of Education, Florida Atlantic University, Boca Raton, Fla. 33432.
Cooperating group(s): Bureau of Indian Affairs, U. S. Department of the Interior.
Publications: Final report submitted to Bureau of Indian Affairs; journal publication planned.

25-OF-2 ACHIEVEMENT MOTIVES AND THE CHILD'S ENVIRONMENT

Purpose: To assess the relationship between motivation to achieve, and/or anxiety about efforts to achieve, and the success of scholastic performance, and to discover how these relationships are modified by the social environment existing in the classroom; to assess the relationship between the success of scholastic performance and self-esteem, and to discover how this relationship is modified by the degree of success in social roles other than being a student and by style of defense against anxiety.
Subjects: About 260 second and fifth graders in two schools with lower class populations, one racially mixed and one predominantly Negro.

Methods: Survey design, both cross-sectional and short-term (one year) longitudinal. The variables to be measured include the pupils' achievement motivation; achievement anxieties; self-esteem; tested intelligence; scholastic performance and perceived scholastic performance; position and perceived position in the sociometric structure of the class; perceptions of the criteria of parents for a good son or daughter, of teachers for a good student, and of classmates for a good friend; and own perceptions of characteristics of black and white children.
Duration: June 1969-May 1972.
Investigator(s): Martin Gold, Ph.D., Program Director, Institute for Social Research, and Associate Professor, Department of Psychology, and Sheila C. Feld, Ph.D., Research Associate, Institute for Social Research, and Associate Professor, School of Social Work, University of Michigan, Ann Arbor, Mich. 48106.
Cooperating group(s): National Institute of Child Health and Human Development, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Publication planned for 1972.

25-OF-3 RELATION OF PHYSICAL FACTORS TO SCHOOL ACHIEVEMENT: A LONGITUDINAL STUDY

Purpose: To determine the relationship between school achievement and physical factors.
Subjects: 71 children from a public suburban school in a middle to upper-middle class community who entered kindergarten in 1962.
Methods: Background data and birth history were gathered on each child. Medical data included physical examinations, ophthalmological, audiometric, and pediatric information, neurological screening, and electroencephalograms. Educational data consisted of dominance tests, speech evaluation, group I.Q. test, and achievement tests. In addition, each child had psychiatric interviews and a psychological evaluation.
Findings: Unusual birth history, when accompanied by other deficits, plays an important role in lack of school achievement.
Duration: 1962-1968.
Investigator(s): Margaret B. Galante, Ph.D., Psychologist, Marion E. Flye, R.N., School Nurse, and Lillian S. Stephens, M.A., Elementary Guidance Counselor, Port Washington Schools, Port Washington, N. Y. 11050.

25-OF-4 ANXIETY AND LEARNING IN YOUNG CHILDREN

Purpose: To examine some of the predeterminants of underachievement in elementary school, particularly those involving the relationship between anxiety and learning; specifically, to study the origins of anxiety in the early school years, how it can be reliably identified by teachers, and what relationship it has to the child's motivation to achieve and his actual achievement.
Subjects: Children from prekindergarten to first grade levels.
Methods: Children's anxiety is measured by a 12-item teacher rating scale of student behavior and a projective clinical-psychological test. Each child's achievement level is determined by standardized tests and his motivation is assessed by a clinical interview technique.
Duration: September 1968-continuing.
Investigator(s): Bryce D. Grossman, Ph.D., Associate Professor, Child Development Center, Hofstra University, Hempstead, N. Y. 11550.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Paper to be presented at Eastern Psychological Association Meeting, April 1970.

25-OF-5 BIOCHEMICAL CORRELATES OF ACHIEVEMENT AND MOTIVATION

Purpose: To investigate the involvement of serum uric acid and serum cholesterol in achievement motivation and behavior.
Subjects: 350 male adolescents for whom ability, achievement, and psychological test data are available.
Methods: Blood samples and followup information were collected from subjects. Data analysis focused on relationship of the two biochemical variables to individual characteristics such as birth order, under- or overachievement in high school, extracurricular activities, education beyond high school, employment history, and achievement test scores.
Duration: April 1968-September 1969.
Investigator(s): Stanislav V. Kasl, Ph.D., Associate Professor of Epidemiology and Psychology, Department of Epidemiology and Public Health, Yale University School of Medicine, New Haven, Conn. 06510.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: To be submitted to Journal of the American Medical Association.

25-OG-1 EXPERIMENTS WITH EDUCATIONAL MEDIA DESIGNED TO MODIFY ATTITUDES

Purpose: To study the effectiveness of sound-slide films for a long-range program designed to improve media intended to modify attitudes.
Subjects: 360 pre-experimental and 1,600 experimental eighth grade students randomly selected from urban, suburban, and small and consolidated rural schools.
Methods: Multiple messages were designed and validated for modifying a single attitude. Educational media and a criterion instrument were applied to the pre-experimental group and results used to refine instruments for assessing attitudes and media effects. Experimental group was then divided into seven experimental groups and one control group. One experimental group viewed six sound-slide films, the remaining six viewed only one film each, and the control group saw none. An "after-only" experimental design was used to test hypotheses concerning the number of motivational patterns required to attain attitude change, the nature of change attained with each viewing group, the impact of the media on attitudes measured with a "Likert-type" inventory, and relationships between statistical significance of findings and generalizations.
Duration: 1966-1969.
Investigator(s): Jack V. Edling, Ph.D., Professor, Teaching Research Division, Oregon State System of Higher Education, Monmouth, Ore. 97361.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report to Office of Education.

25-OG-2 ADAPTIVE BEHAVIOR IN VARIED HIGH SCHOOL ENVIRONMENTS

Purpose: To develop a theory for preventive interventions that are relevant for specific social settings; specifically, to determine those factors of a high school's social environment and of the individual student which produce varied adaptive behavior in different high schools and to define the process by which students adapt to their high school environment.
Subjects: Male students from four high schools in southeastern Michigan.
Methods: Research consists essentially of a study of the relations

between coping style, adaptive roles, and social setting. Two methods are being developed for studying these relationships: a multiple selection battery consisting of a questionnaire for assessing exploratory preferences, a thematic instrument consisting of material relating to natural social situations, a biographical inventory of developmental preferences of exploratory behavior, and a peer rating instrument; and measures of the social structure and functions of the schools.
Duration: May 1968-April 1974.
Investigator(s): James G. Kelly, Ph.D., Professor of Psychology, and Research Associate, Institute for Social Research, University of Michigan, Ann Arbor, Mich. 48104. (Reported by Merikay Bryan, Institute for Social Research.)
Cooperating group(s): Detroit Public Schools, Wayne Community School District, and South Redford School District, Mich.; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Human Development 10:3 and 4:212-222, 1967; American Psychologist 21:6:535-539, June 1966; others.

25-OI-1 REFERENCE GROUP INFLUENCE ON HIGH SCHOOL COMPLETION

Purpose: To examine the influence of three major reference groups, family, peers, and teachers, which might have an effect on the potential high school dropout, especially in Negro and Spanish-speaking ethnic groups.
Subjects: 2,007 high school students in a highly urbanized and industrialized city.
Methods: A 44-page questionnaire was administered to students prior to the completion of their high school education. After they leave high school, a dropout group of about 200, of whom one-third will be Negro and one-third Spanish-American, will be contrasted with a matched group of graduates to assess factors leading to withdrawal. Families, peers, and teachers are studied in order to determine their attitudes toward education and their general value systems.
Duration: July 1969-August 1970.
Investigator(s): Michael A. Malec, Ph.D., Assistant Professor of Sociology, Boston College, Chestnut Hill, Mass. 02167.
Cooperating group(s): National Science Foundation.
Publications: Plan to submit journal articles; possibly a book.

Specific Skills

25-PA-1 A THREE-YEAR EXPERIMENTAL STUDY OF THE EFFECTIVENESS OF PROGRAMMED INSTRUCTION IN MATHEMATICS

Purpose: To compare the mathematical achievement and retention resulting from use of programmed materials and from regular textbooks; to determine the various personality traits and attitudes toward mathematics of those who complete a three-year program; to determine the mathematical concepts and skills effectively taught by programmed instruction; and to follow up on the success in mathematics of those students who pursue the subject their first year in college.
Subjects: 10 groups of students in grades 10 through 12.
Methods: Half of the pupils used programmed materials and were allowed

to progress at their own rate; the other half used textbooks. Both experimental and control groups were tested periodically to measure achievement. Results were statistically analyzed.
Duration: 1966-1968.
Investigator(s): Orlando F. Furno, Ph.D., State Department of Education, Baltimore, Md. 21218.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

25-PB-1 PRESENTING A SECOND LANGUAGE TO LEARNERS AGES FOUR AND FIVE

Purpose: To investigate the extent to which children can acquire a knowledge of Welsh as a second language, and to determine what materials should be used for this purpose.
Subjects: Children, ages five and six, whose first language is English.
Methods: Children were exposed to Welsh for 8 to 10 hours per week in a classroom situation in association with other educational activity. Ordinary infant school activities were conducted in Welsh, and recordings made of children's command of the language.
Duration: Completed.
Investigator(s): C. J. Dodson, M.A., Senior Lecturer, and Eurwen Price, B.A., Assistant, Department of Education, University of Wales, Aberystwyth, Wales, Great Britain.
Publications: In Towards Bilingualism. Aberystwyth, Wales: University of Wales Press, 1969.

25-PB-2 A COMPARISON OF THREE APPROACHES TO THE TEACHING OF READING: A LONGITUDINAL STUDY

Purpose: To compare the effectiveness of modified basal reader, i.t.a., and linguistic materials approaches in reading instruction.
Subjects: First grade children.
Methods: The three methods were utilized by the same teacher in three successive first grade classes which were then followed for six years. Analysis of resulting data involved individual case analysis and group analysis on factors related to learning by each method.
Duration: 1965-1969.
Investigator(s): Sidney W. Shnayer, Ed.D., Associate Professor of Education, and Director, Reading Center, Chico State College, Chico, Calif. 95926.
Publications: Journal articles in preparation.

25-PB-3 REPEATED SELF-VIEWING ON CLOSED CIRCUIT TELEVISION AS IT EFFECTS CHANGES IN STUDENTS' AWARENESS OF THEMSELVES AS SPEAKERS

Purpose: To assess the impact on students' self-concepts of using closed circuit television as a teaching device in a speech class.
Subjects: 60 students each in an experimental and a control group.
Methods: Identical speech assignments were given in the same sequence to both groups. Through closed-circuit television reruns, students in experimental group were able to view themselves as others saw them and, through this self-viewing, to assess their strengths and weaknesses as speakers from a new viewpoint. Statistical analysis compared "actual-self"

and "ideal-self" differences between the control and experimental groups, differences in ratings of the "actual-self" and ratings of the self by observers, and frequencies of change from group membership terms to individual evaluative terms.
Duration: January-October 1968.
Investigator(s): Richard J. Dieker, Ph.D., Assistant Professor of Speech, Western Michigan University, Kalamazoo, Mich. 49001.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

25-PB-4 SUPERVISED TRAINING OF TEACHERS IN TECHNIQUES OF PERCEPTUAL STIMULATION OF CHILDREN WITH READING DISABILITY

Purpose: To disseminate an approach found effective in previous research in the diagnosis and treatment of children with reading disability.
Subjects: Teachers in the first and second grades of the public schools of the lower east side of Manhattan.
Methods: Children with language problems in the first and second grades on the lower east side of Manhattan are referred to New York University-Bellevue Medical Center for complete diagnostic survey. Findings are reviewed with the teacher, who is then supervised in her work with her particular child in a series of weekly supervisory sessions extending over the period of one year.
Duration: January 1968-July 1969.
Investigator(s): Archie A. Silver, M.D., Associate Clinical Professor, Department of Neurology and Psychiatry, and Rosa A. Hagin, Ph.D., Assistant Professor in Clinical Psychology, New York University-Bellevue Medical Center, New York, N. Y. 10016.
Cooperating group(s): New York City Board of Education.
Publications: Paper presented at American Orthopsychiatric Association Meeting, New York, March 1969.

25-PB-5 THREE-YEAR STUDY OF EFFECTIVENESS OF LANGUAGE LABORATORY IN TEACHING GERMAN TO SECONDARY SCHOOL BOYS

Purpose: To assess the effectiveness of the use of the language laboratory as compared to the tape recorder as a classroom aid in language acquisition; to compare the effectiveness of an audiolingual with that of an audiovisual course.
Subjects: 102 male students, ages 11 and up, separated into three classes matched for language aptitude, verbal and nonverbal I.Q., and "parental encouragement" factors.
Methods: Each class studies German for 40 minutes at the same time each day. Their three teachers rotate classes every four months. Two groups follow the same German course at the same speed, both using recorded native voices on tape. One group uses the laboratory, one uses only the tape recorder in the classroom, and the third uses an audiovisual course. In 1970, videotape records being kept of all pupils will be played back to a jury of teachers and native speakers. Statistical results of comprehension will be evaluated and independent subjective measurement being kept of each pupil by a native German-speaking teacher will be compared with the videotape assessments and written tests.
Duration: September 1967-September 1970.
Investigator(s): E. W. Hawkins, M.A., Professor, Language Teaching Center, University of York, York, England.
Publications: Report planned in late 1970 or 1971.

25-PB-6 EVALUATION OF THE INSTRUCTIONAL EFFECTIVENESS OF A TELEVISION-BASED SYSTEM FOR DEVELOPING BASIC READING SKILLS

Purpose: To examine the effectiveness of the various components of the Reading Through Television system in order to improve basic reading skills.
Subjects: Various target populations including bilingual juveniles, disadvantaged inner-city juveniles, functionally illiterate and semi-literate adolescents, and functionally illiterate and semiliterate hard core unemployed adults.
Methods: Treatment classes were tested with the total Reading Through Television system and specific components of the system under the direction of teachers who either had a thorough orientation in utilization of the whole system or had no preparation for the utilization of the various components. These included telecasts, student and teacher texts and workbooks, filmstrips, audio tapes, and Language Master cards.
Findings: One class of disadvantaged juveniles progressed significantly with the entire system, including multiple telecast viewing. Progress of a class of bilingual juveniles which did not use the telecasts approached significance.
Duration: June 1968-June 1969.
Investigator(s): W. R. Fall, Vice President, and Donald L. Mahoney, Director, Membership and Program Services, MPATI, Inc., Purdue University, Lafayette, Ind. 47902.
Cooperating group(s): Language Research, Inc., Cambridge, Mass.; Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report available from MPATI, Inc.

25-PB-7 A STUDY OF THE INDEPENDENT READING OF ACHIEVING FIFTH GRADERS

Purpose: To investigate the independent reading of achieving fifth graders in order to determine the relationship between the number, quality, and variety of books selected and read and specific academic, cognitive, and personality variables.
Subjects: 200 achieving fifth grade pupils in a community with good library facilities.
Methods: Data on amount of reading done by students are gathered through combined library and pupil records, and a single index of amount of reading is derived. The amount will be measured by number of books read, with a control for book length, and time spent reading within a given period. Quality of selections is determined by an index based upon librarians' judgments about the educational value of the books read, and the variety of selections is measured by an index derived from the number of books read within different subject categories. All variables will be intercorrelated separately for each sex and for the sample as a whole and analyses of variance employed to test for curvilinear relations.
Duration: June 1968-February 1970.
Investigator(s): Edmund H. Henderson, Ph.D., Director, McGuffey Reading Center, University of Virginia School of Education, Charlottesville, Va. 22903.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report to Office of Education, February 1970; to be presented to International Reading Association, May 1970; article planned for 1971.

25-PC-1 DEVELOPMENT AND TESTING OF INSTRUCTIONAL STRATEGIES IN PERCEPTUAL TRAINING TO INCREASE INDIVIDUAL'S ABILITY TO HANDLE VISUAL INFORMATION

Purpose: To test instructional strategies designed to increase the individual's preference for complexity and asymmetry in art; to identify specific instructional strategies for perceptual training and art education and specific behavioral referents for perceptual learning in art.
Subjects: 270 children in grades four, five, and six.
Methods: Children were assigned to one of three experimental conditions; (1) perceptual training program designed to influence manipulation of the visual elements of complexity and asymmetry and student ability to handle visual information, (2) regular art course without specific perceptual training, and (3) control situation with no art instruction. Pre- and posttests were administered to measure behavioral change on the variables of sophistication of body concept (Draw-A-Person Test), perceptual field-independence (Embedded Figures Test), figure preference for complexity and asymmetry (Welsh Figure Preference Test), and adaptive, figural flexibility (Torrance's Nonverbal Tests of Creative Thinking). Analysis of variance determined differences between the three experimental conditions at each grade level.
Duration: October 1967-December 1968.
Investigator(s): Harold J. McWhinnie, Ed.D., Assistant Professor of Art, Ohio State University, Columbus, Ohio 43210.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: California Journal of Educational Research; Acta Psychologica; Perceptual and Motor Skills.

Special Education

25-QE-1 COMPARISON OF STRUCTURED VERSUS UNSTRUCTURED LANGUAGE STIMULATION WITH PRESCHOOL LANGUAGE-DELAYED DEPRIVED CHILDREN

Purpose: To study better methods of stimulating children with language delay.
Subjects: Preschool children enrolled in a program for economically deprived children who function at a retarded level.
Methods: Small group language stimulation is being carried out using Peabody Kit materials and methods, or using less structured materials and free choice of activities.
Duration: September 1967-September 1970.
Investigator(s): Michael J. D'Asaro, Ph.D., Chief, Speech Pathology and Audiology, Kennedy Child Study Center, 1339 - 20th St., Santa Monica 90025; and Maurice Sklar, Ph.D., Chief, Speech Pathology and Audiology, Veterans Administration Center, Los Angeles, Calif.
Publications: Journal of Speech and Hearing Research.

25-QE-2 DEVELOPMENT OF TECHNIQUES TO TEACH MOTIVATION TO ACHIEVE IN PRESCHOOL CHILDREN, WITH FURTHER REFINEMENTS OF A MEASURING INSTRUMENT

Purpose: To develop a curriculum to increase motivation to achieve in school among preschool children; to make further refinements of a test designed to measure motivation to achieve in preschool children and explore its potential usefulness for children through age nine; to

explore differences in test performance among different ethnic and cultural groups.
Subjects: Head Start children in experimental classrooms; children in the first, second, and fourth grades in Hawaiian schools; Head Start children from different ethnic and cultural groups.
Methods: A series of exercises or devices designed to increase school oriented motivation was developed. Teachers of Head Start classes were trained in this curriculum in regular meetings. Children in their classes are compared with children in other classes with respect to changes in several measures. An individual form of the test, called Gumpgookies, has been given to Head Start children in the experimental group and in various comparison groups. Extensive statistical analyses of the results are under way, including difficulty indices, reliability and validity indices, cluster and factor analyses, and correlations with other measures. Two group forms of the test have been administered to children in grades 1, 2, and 4, and extensive statistical analyses are being done. The individual test has been administered to samples of four-year-old children in various cultural groups. Performance on individual items and on the total test will be compared, and factor analysis applied to the different sets of data.
Findings: Work on the curriculum is primarily exploratory in nature. The latest edition of the test, containing 75 items, can be given in about 15 minutes. Its reliability is adequate, and there is some evidence of validity.
Duration: July 1968-December 1969.
Investigator(s): Dorothy C. Adkins, Ph.D., Professor and Researcher, Education Research and Development Center, University of Hawaii College of Education, Honolulu, Hawaii 96822; and Bonnie Ballif, Ph.D., Assistant Professor, Fordham University, Bronx, N. Y. 10458.
Cooperating group(s): Head Start, Office of Economic Opportunity, now being administered by the U. S. Department of Health, Education, and Welfare.
Publications: Probably journal articles.

25-QE-3 CULTURAL AND LINGUISTIC FACTORS IN READING

Purpose: To devise an approach to the teaching of reading to nonstandard dialect-speaking Negro children, taking into account the more problematic "educationally relevant differences" between such a child and the school culture.
Subjects: Negro nonstandard English-speaking children in grades one and two.
Methods: Teachers are trained to use dialect texts. These begin in dialect, run through a transitional phase, and end in standard English. All texts maintain standard English orthography. Children are exposed to one of four conditions: their teachers are trained in language and culture of the ghetto, or in teaching reading, and children get dialect materials, or teachers get training in language and culture of the ghetto, or in teaching reading, and the children get standard urban readers.
Duration: April 1969-June 1971.
Investigator(s): Joan C. Baratz, Ph.D., Codirector, Education Study Center, 7-11 14th St., N. W., Washington, D. C. 20005.
Cooperating group(s): Catholic schools in the Washington, D. C. area; National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Plan to present papers at professional meetings and submit articles to professional journals; perhaps a monograph upon completion.

25-QE-4 ANALYSIS OF COMPENSATORY EDUCATION WITHIN SCHOOLS FROM FIVE MAJOR SCHOOL DISTRICTS

Purpose: To analyze various compensatory education programs in order to determine pupil's achievement trends and performance characteristics, and successful features of such programs.
Subjects: Children in compensatory education programs in school districts of Des Moines, Iowa, New Orleans, La., Prince George's County, Md., San Diego, Calif., and Seattle, Wash.
Methods: Analysis includes study of the development of children's achievement trends and the identification of compensatory education programs by school and grade, and the use of program data by grade. Results will include information and discussion beyond statistical analysis of changes in achievement scores.
Duration: Not reported.
Investigator(s): E. J. Mosbaek, Ph.D., Manager, Operations Research, General Electric Co., 777 - 14th St., N. W., Washington, D. C. 20005.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.

25-QE-5 RURAL CHILD CARE PROJECT

Purpose: To assess the relationship between a child's attendance in a Rural Child Care Project Child Development Center and his subsequent intellectual performance and academic achievement; to assess the effect of the combined casework, homemaking, and day care services on families of children who have been exposed to the Child Development program; to ascertain the image of the project in participating counties; and to evaluate the effectiveness of the subprofessional staff in providing project services to the culturally disadvantaged child and his family.
Subjects: First and second graders who had previously attended the Child Development Center; matched comparison group.
Methods: Followup I.Q. data were obtained on first and second grade children who had attended the Center, and a sample was compared for achievement with a similar sample of untreated children. Measurement was made of changes in family patterns of household operation, in attitudes toward education, and toward various childrearing practices. The image of the project was assessed by ascertaining the degree to which its existence and goals were known to a sample of community leaders and to a group of indigent adults, and their attitudes toward it. Effectiveness of the subprofessional staff was evaluated by supervisors' ratings.
Findings: Children who had attended the Center showed a loss in Stanford-Binet I.Q. and did not perform better than a matched group on the California Achievement Test. Effects on families are inconclusive.
Duration: September 1965-June 1969.
Investigator(s): Judith P. Archambo, Ph.D., Director of Research, Kentucky Child Welfare Research Foundation, Inc., P.O. Box 713, Frankfort, Ky. 40601.
Cooperating group(s): Head Start, Office of Economic Opportunity, now being administered by the U. S. Department of Health, Education, and Welfare.
Publications: Final report. Head Start Office of Research and Evaluation.

25-QE-6 DISADVANTAGED CHILDREN AND THEIR FIRST SCHOOL EXPERIENCES

Purpose: To provide information useful for educational and social planning for disadvantaged children at federal, state, and local levels; to determine the roles of the children's families and communities, in

interaction with preschools and regular schools, in fostering their mental, social, emotional, and physical development.
Subjects: 2,000 three-and-one-half year old children in Lee County, Ala., Trenton, N. J., St. Louis, Mo., and Portland, Ore., the majority of whom are black and disadvantaged.
Methods: All children are observed and tested from a point prior to the influence of any special educational programs in their lives through at least the third grade. During this time some will attend Head Start programs and/or kindergarten, while others will not. Appropriate comparisons will be made among groups of children with different characteristics who are exposed to different amounts and kinds of educational experiences. Information is also being collected on the Head Start and school programs the children experience, their teachers, the physical surroundings and psychological climate in which the programs operate, and the characteristics of the children's homes, family lives, and communities.
Duration: 1969-1974.
Investigator(s): Scarvia Anderson, Ph.D., Director, Division of Educational Studies, Dr. Albert Beaton, Walter Emmerich, Ph.D., and Samuel Messick, Ph.D., Senior Research Psychologists; Virginia Shipman, Ph.D., Coordinator of Measurement and Training, and Joseph L. Boyd, Ed.D., Program Director, Educational Testing Service, Princeton, N. J. 08540.
Cooperating group(s): Head Start, Office of Economic Opportunity, now being administered by the U. S. Department of Health, Education, and Welfare.
Publications: Disadvantaged Children and Their First School Experiences: From Theory to Operations, August 1969.

25-QG-1 CHARACTERISTICS OF FULL-TIME STUDENTS IN POSTSECONDARY TRADE COURSES

Purpose: To identify criteria useful to counselors and others in advising post-high school vocational-technical students as they attempt to pursue specific vocational-technical curricula.
Subjects: 17,500 persons who applied to the area vocational-technical schools of Minnesota from September 1966 to October 1968.
Methods: All subjects are given an extensive test battery and then followed to determine the characteristics displayed at time of enrollment by those who were successful in various occupations.
Findings: Followup returns can be increased by providing incentives for response; vocational students in almost all training programs have less scholastic ability than equivalent high school populations; and interests and aptitudes tend to differentiate persons who are successful in different occupations.
Duration: December 1965-January 1972.
Investigator(s): Howard F. Nelson, Ed.D., Professor and Chairman, and David J. Pucel, Ph.D., Assistant Professor, Department of Industrial Education, University of Minnesota, Minneapolis, Minn. 55455.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Data available in published reports.

25-QG-2 HIGH SCHOOL DROPOUTS AND VOCATIONAL EDUCATION IN WISCONSIN

Purpose: To investigate the relationship between Wisconsin's high school dropouts and the State's public and private vocational schools; to determine the differences in the dropout populations at various types of vocational schools.

Methods: A small number of high school dropouts engaged in institutional vocational instruction were located within the State. Descriptive characteristics of various types of vocational instruction were gathered and combined with the students' attitudinal and motivational measures.
Findings: As a result of educational discrimination and financial barriers, both public and private vocational schools were rather inaccessible to the dropout. General recommendations call for the improvement of internal data systems in reference to dropouts and the expansion of the public effort in the field of vocational instruction for this group.
Duration: January-September 1968.
Investigator(s): Myron Roomkin, M.S., Survey Director, Center for Studies in Vocational and Technical Education, University of Wisconsin, Madison, Wis. 53706.
Cooperating group(s): Wisconsin Board of Vocational, Technical, and Adult Education.
Publications: Report prepared for Center for Studies in Vocational and Technical Education, and Wisconsin Board of Vocational, Technical, and Adult Education.

25-CH-1 PUBLIC SCHOOL PROGRAM OF REMEDIATION FOR CHILDREN WITH SEVERE LEARNING DISABILITIES

Purpose: To demonstrate how a small public school district can mobilize existing resources to implement a program for teaching children with severe learning disabilities.
Subjects: Approximately 150 such disabled children yearly.
Methods: A psychoeducational diagnostic center was established and a combined diagnostic-remedial-consultative approach used within the school. Regular classroom teachers conducted a remedial program in which they were aided by a strong consultative service and materials separated into specific units. A team approach was used as opposed to the usual procedure of special class placement. Evaluation consisted of individual pre- and posttesting of all children.
Duration: September 1966-June 1969.
Investigator(s): Jeanne McCarthy, Ph.D., Director of Special Services, Schaumberg School District 54, Hoffman Estates, Ill. 60172.
Cooperating group(s): Office of Education, U. S. Department of Health, Education, and Welfare.
Publications: Final report to Office of Education.

SOCIAL SERVICES

25-RA-1 A STUDY OF THE JOINT PLANNING SERVICE

Purpose: To study the intake, client process, and placement of the Joint Planning Service operated by the Jewish Board of Guardians and the Jewish Child Care Association; to determine the unmet needs of those who request assistance from the Joint Planning Service, as well as to identify the community agencies which do and do not refer clients to this service; to examine the decisionmaking process regarding placement or rejection of a client; and to make explicit the complex set of decisions utilized in regard to the service to be offered.
Methods: A series of forms was developed and a procedure for tracking each client who calls, writes, or walks into the Joint Planning Service through the system until it is determined that he is not eligible for placement or until placement has occurred, over a period of one year. In addition, interviews were conducted with key persons within the Joint Planning Service, with the relevant service programs, and with referring agencies.
Duration: January 1968-June 1969.
Investigator(s): David C. Twain, Ph.D., Director, Research and Development Center, Jewish Board of Guardians, 120 W. 57th St., New York, N. Y. 10019.
Publications: Final report.

25-RA-2 THE EXTENT AND ADEQUACY OF THE EXISTING PHYSICAL PLANT, UNDER SOCIAL WORK AUSPICES, FOR THE GROUP CARE OF CHILDREN (PHYSICAL FACILITIES FOR GROUP CARE OF CHILDREN)

Purpose: To conduct a national study of physical facilities for group care of children in the United States; specifically, to determine characteristics of existing plant, and to relate these characteristics to emerging functions of children's institutions and to kinds of new program demands made on the facilities; to estimate the extent to which institutional child care programs would benefit from change, remodeling or rebuilding of physical settings, and the scope, cost, financing, and other problems of such rehabilitation programs.
Methods: Each state is surveyed to determine the number and kinds of residential institutions for children currently operating. All children's institutions, except those for the physically handicapped and mentally retarded, are studied in order to determine the kinds of children under care, the institution's staff, goals, and programs, physical facilities available, role of physical plant in implementing current and desired programs, and the kinds of changes needed for optimal functioning. Field surveys provide appraisals of the feasibility of the types of changes desired, and these are then related to issues of code, construction, probable cost, etc.
Duration: October 1966-not reported.
Investigator(s): Donnell M. Pappenfort, Ph.D., Research Associate, Center for Urban Studies, and Associate Professor, and Dee Morgan Kilpatrick, Ph.D., Associate Professor, School of Social Service Administration, University of Chicago, Chicago, Ill. 60637.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-RA-3 PLANNED INTERVENTION TO MEET CHILDREN'S NEEDS

Purpose: To improve the availability and appropriateness of child welfare services in six southeastern states; specifically, to assess the prevalence of medical, psychological, and social conditions having ominous implications for children's well-being.
Subjects: Four groups of eight-year-old children in each of the six states.
Methods: Pediatric and psychological studies are done on children and supplemented by brief social studies of each child's life situation. Clinical examinations are supplemented by parental reports and teacher observations. Judgment regarding the services needed in each case is made by "staffing" each child and validated with a sample of records against the opinions of a panel.
Duration: September 1968-not reported.
Investigator(s): David Levine, Ph.D., Associate Dean and Professor, University of Georgia School of Social Work, Athens, Ga. 30601.
Cooperating group(s): U. S. Department of Health, Education, and Welfare.

25-RB-1 THE YOUTH SERVICE CORPS

Purpose: To improve police-community relations, and to provide work experience for inner city youth.
Subjects: Initially, 630 boys from Detroit's inner city, ages 14 to 16, who had evidenced problems in school and were potential dropouts.
Methods: Youth are employed as police aides in summer program and perform duties such as checking on abandoned cars, searching for lost children, reporting damaged streets and sidewalks, etc.
Findings: The Youth Service Corps seems to be a good method for improving police-community relations.
Duration: 1965-continuing.
Investigator(s): Madison Foster II, M.S.W., Youth Service Corps Supervisor, Neighborhood Service Organization, 51 W. Warren Ave., Detroit, Mich. 48201. (Reported by Myron L. Liner, Assistant Director, Neighborhood Service Organization.)
Cooperating group(s): Detroit Police Department, Detroit, Mich.; United Community Services; McGregor Fund.

25-RB-2 INVESTIGATING A POTENTIAL IN CLERGY-YOUTH COUNSELING

Purpose: To determine whether a clergy-youth counseling program is successful enough to be recommended as a regular part of the Church's focus on youth; specifically, to test the effectiveness of clergymen in youth counseling, and to explore the institutional church's potential for helping youth.
Methods: Research is based on a five-year pilot project completed by Church Youth Research which developed a way of bringing together clergymen who could counsel and youth who needed counseling. Original base is being broadened by testing the program's appropriateness for all major religious bodies in the United States. After participation of interested church leaders is secured, self-disclosure among youth is encouraged, and clergymen are aided in establishing a relationship emphasizing developmental counseling.
Duration: April 1969-March 1972.
Investigator(s): Merton P. Strommen, Ph.D., Director, Youth Research Center, 122 W. Franklin Ave., Minneapolis, Minn. 55404.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-RC-1 THE CONSEQUENCES OF ADOLESCENT ILLEGITIMACY

Purpose: To study the social consequences of adolescent unwed parenthood, specifically, how it affects their educational and marital careers; to examine the success of the Adolescent Family Clinic birth control program at Sinai Hospital in Baltimore in reducing recidivism. (See Research Relating to Children, Bull. No. 22-SD-2.)
Subjects: Girls in the Adolescent Family Clinic program, both unmarried and married, and control group; fathers of the babies.
Methods: Data derived from the Sinai experiment will be analyzed and comparison made between the AFC sample and the control group, and subgroup comparisons made within the AFC sample. The data provide information on which girls are most receptive or resistant to the program, social factors affecting their responsiveness, birth control methods considered more satisfactory and successful, and whether there are ways of modifying the program to improve its effectiveness. In as many cases as possible, the father will be interviewed with regard to the responsibility he is willing to assume, the kind of relationship he maintains with the mother and child, the possibility of marriage to the mother, what social factors relate to the timing and occurrence of marriage, and the likelihood of recidivism. Will also interview a matched sample of girls who were not pregnant at the beginning of the AFC program and examine their careers.
Duration: July 1968-not reported.
Investigator(s): Frank F. Furstenberg, Jr., Ph.D., Assistant Professor of Sociology, University of Pennsylvania, Philadelphia, Pa. 19104.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-RC-2 CHARACTERISTICS OF UNWED FATHERS IN ATLANTA ADOLESCENT PREGNANCY PROGRAM

Purpose: To gain a better understanding of the adolescent fathers of children born out of wedlock to clients in the AAPP; to determine the correlates of several outcomes affecting the girl, the boy, and the baby, including whether or not (1) the couple continues their relationship, (2) they use contraception, (3) the girl returns to school, and (4) the boy assumes responsibility for the child. (See Research Relating to Children, Bull. No. 23-NA-3 and No. 24-QH-4.)
Subjects: 125 AAPP fathers, most of whom are young and from a low income Negro area surrounding the project high school; AAPP girls.
Methods: Will interview subjects for information on their background and on their attitudes about illegitimacy and contraception, the meaning of sexuality, meaningfulness of their relationship, and their expectations for the role of the unwed father and mother. Standardized psychological tests will be given. Information obtained will be used as basis for developing social services for unmarried fathers.
Duration: July 1969-not reported.
Investigator(s): Phyllis A. Ewer, Ph.D., Assistant Professor of Sociology, Department of Gynecology and Obstetrics, and Frank Clark, Ph.D., Assistant Professor, Department of Psychiatry, Emory University School of Medicine, Atlanta, Ga. 30303.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-PD-1 "HOMES NOW" ADOPTION PROJECT

Purpose: An experiment to explore and refine methods for accelerating the adoption placement of Negro and mixed-race children.

Subjects: The black community of Chicago.
Methods: New attitudes of the community toward itself are studied, and community groups are involved in developing adoption techniques.
Duration: November 1968-November 1971.
Investigator(s): Spencer H. Crookes, Executive Director, Illinois Children's Home and Aid Society, 1122 N. Dearborn St., Chicago, Ill. 60610.
Cooperating group(s): Wieboldt Foundation.

25-RD-2 GROUP METHODS IN AN ADOPTION AGENCY

Purpose: To apply and evaluate group methods among professionals in an adoption agency.
Methods: Group method leaders in professional social work meet every two weeks with a consultant psychiatrist, the agency's staff, and clients.
Findings: Group methods have been successful in improving communication and cohesion among staff members.
Duration: 1967-1970.
Investigator(s): Donald A. Shaskan, M.D., Chief, Mental Hygiene Clinic, Veterans Administration Hospital, San Francisco 94121; and William L. Moran, M.S.W., District Director, Children's Home Society of California, Oakland, Calif.
Publications: Presented at 47th Annual Meeting, American Orthopsychiatric Association, March 1970, San Francisco; 12th Annual Conference, Golden Gate Group Psychotherapy Society, June 1969, San Francisco; and 26th Annual Conference, American Group Psychotherapy Association, February 1969, New York.

25-RD-3 STUDY OF NEGRO ADOPTION FAMILIES: A COMPARISON OF A TRADITIONAL AND AN INNOVATIVE ADOPTION PROGRAM

Purpose: To compare an innovative adoption program with the more traditional adoption program and determine whether the differences have a differential effect on the functioning and welfare of the children.
Subjects: Samples of 50 children in each type of program, drawn from caseload of Children's Aid Society of Pennsylvania. (See Research Relating to Children, Bull. No. 23-RD-1.)
Methods: Modifications were made in adoption practice to expand the possibilities of either legal or social adoption for this group of children. These changes may lead to the selection of families that are different from the traditional in their socioeconomic circumstances, their motivations and perceptions about adoption, and possibly in their social functioning. Data collection instruments were developed to compare the level of social and personal adjustment of the two groups of children. Parents in both groups will also be tested for significant differences in family functioning.
Duration: August 1969-July 1970.
Investigator(s): Janet L. Hoopes, Ph.D., Chief Psychologist, and Elizabeth A. Lawder, M.S.W., Executive Director, Children's Aid Society of Pennsylvania, 311 S. Juniper St., Philadelphia 19107; and Katherine D. Lower, Ph.D., Director of the Graduate Department of Social Work and Social Research, Bryn Mawr College, Bryn Mawr, Pa. 19010.
Cooperating group(s): U. S. Department of Health, Education, and Welfare.

25-RF-1 CHILD CARE SERVICES: AN INVESTIGATION OF THE IMPACT ON PARTICIPATING MOTHERS OF AN ANTIPOVERTY DAY CARE CENTER

Purpose: To determine whether the enrollment of a child in a day care center sponsored by the Office of Economic Opportunity would cause an economic change in the life of the family.
Subjects: 26 mothers of 28 children enrolled in the Hempstead Day Care Center.
Methods: A questionnaire designed to collect demographic educational training and employment data was administered to the subjects.
Findings: Data tend to support the hypothesis that enrollment of a child in the day care center will cause economic change in the life of the family.
Duration: May 1968-March 1969.
Investigator(s): W. M. Davis, Jr., Ph.D. Candidate, Research Director, and Research Staff, Economic Opportunity Commission of Nassau County, 320 Old Country Rd., Garden City, N. Y. 11553.
Cooperating group(s): Hempstead Economic Opportunity Council.
Publications: Publication planned in appropriate professional journals.

25-RF-2 RAISING THE LEVEL OF HEALTH IN DAY CARE

Purpose: To assess the health of children in a day care group of a Chicago settlement house; specifically, to create a more effective health care model and to improve communication with those who are responsible for implementing research findings.
Subjects: 100 children ages four and five, from the north side of Chicago, the majority of whom were of Spanish-American origin.
Methods: Children were given physical examinations, blood, urine, and tuberculosis tests, and vision and hearing evaluations. A complete health history of each child was obtained from parents in Spanish and English. Continuing pediatric planning and followup of disorders detected were carried out with interpretation to parents, day care personnel, and referral resources. Parent volunteers also assisted in the study. Individuals who will later be asked to follow up problems participated in a series of orientation meetings.
Findings: Majority of children had significant, usually correctable health problems.
Duration: November 1968-June 1969.
Investigator(s): Roger J. Meyer, M.D., M.P.H., Director, Infant Welfare Society of Chicago, 203 N. Wabash Ave., Chicago 60601; Sister Joan, M.S.W., Director, DePaul Settlement and Daycare Center; and John Frey, Senior Medical Student, Northwestern University Medical School, Chicago, Ill.
Publications: Citizens for Daycare, Inc., Chicago, Ill. Technical Report, submitted for publication.

25-RF-3 DEVELOPMENT OF PROGRAM FOR INFANT DAY CARE CENTER

Purpose: To develop a program for an infant day care center in an inner city poverty area of San Francisco; to develop methods for evaluating its effectiveness for the infant, the mother, and the father.
Subjects: Infants up to preschool center age, and their teenage parents, married or unmarried.
Methods: Infants will be followed with developmental and health assessments through first grade. Parents will be given instruction and experience in child development and childrearing, vocational guidance,

job placement service, and social counseling, all of which will be coordinated with school or work schedules. Comprehensive health care will be provided the family.
Duration: July 1969-not reported.
Investigator(s): Ruth T. Gross, M.D., Director of Pediatrics, Mount Zion Hospital and Medical Center, San Francisco 94115; and Audrey L. Smith, Program Coordinator, 5657 Diamond Heights Blvd., San Francisco, Calif. 94131.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-RG-1 COORDINATED RESEARCH PROGRAM IN FOSTER CARE

Purpose: To conduct a three-year study of children at risk because of parental dysfunction; specifically, to examine the content and effectiveness of services to children in their own homes, and to develop a more explicit rationale for deciding whether to serve children in their own homes or to place them elsewhere. (See Research Relating to Children, Bull. No. 24-RE-3.)
Subjects: All requests for service related to children's needs until total includes 300 families in which a participating agency accepts responsibility for service to the children.
Methods: Study will be conducted in six public and voluntary child welfare agencies. Data will be gathered through schedules completed by caseworkers, and through interviews with caseworkers and parents.
Duration: March 1970-October 1972.
Investigator(s): Ann W. Shyne, Ph.D., Director of Research, Lucille J. Grow, and Michael H. Phillips, Research Associates, Child Welfare League of America, Inc., 44 E. 23rd St., New York, N. Y. 10010.
Cooperating group(s): U. S. Department of Health, Education, and Welfare.
Publications: Report to be completed in October 1972.

25-MH-1 DISTINCTIVE PERSONALITY ATTITUDES OF CHILD-ABUSING MOTHERS

Purpose: To conduct an empirical exploration of hypotheses derived from the current child abuse literature.
Subjects: 10 mothers, nine black and one white, referred to a child study clinic for suspected child abuse; control group of 10 mothers of similar socioeconomic status.
Methods: Selected personality measures including the TAT, five selected subscales of the California Test of Personality, the Family Concept Inventory, and the Manifest Rejection Scale, were administered to both groups of mothers and t test comparisons made of the differences between their scores.
Findings: Abusive mothers scored higher on TAT pathogenicity and dependency frustration, but lower on TAT need to give nurturance, self-esteem, family satisfaction, and on Manifest Rejection Scale. They appeared characterized by an inability to empathize with their children, by severely frustrated dependency needs, and a history of emotional deprivation.
Duration: June 1967-January 1969.
Investigator(s): Barry Melnick, Ph.D. Candidate, and John R. Hurley, Ph.D., Professor of Psychology, Michigan State University, E. Lansing, Mich. 48823.
Cooperating group(s): Wayne County Clinic for Child Study, Detroit; Brewster Neighborhood Social Service Organization, Detroit.
Publications: Journal of Consulting and Clinical Psychology.

25-MH-2 CASEWORK TREATMENT OF INADEQUATE PARENTING

Purpose: To determine those casework techniques and conceptualizations used by caseworkers which are effective in forming relationships and producing change in parents who provide marginal or actually neglectful care for their children.
Subjects: Families who are receiving AFDC and have been active with the Welfare Department for at least one year.
Methods: Case records are read and analyzed according to scales devised to measure casework conceptualization, techniques, and movement. Welfare department caseworkers are interviewed to assess the childcaring adequacy and personality of the mother in families whose records are being read. The scales used to measure the characteristics of the mother and the adequacy of childcaring were developed and validated in previous studies. Case vignettes will be gathered concerning the effects of specific casework techniques with specific families, and correlations made between movement and the personality of the mother, the initial level of child care, and casework techniques applied.
Duration: May 1969-September 1970.
Investigator(s): Norman A. Polansky, Ph.D., Professor of Social Work and Sociology, and Director, Robert Borgman, A.B., and Christine DeSaix, A.B., Research Associates, and Shlomo Sharlin, A.B., Research Assistant, Child Research Field Station, University of Georgia School of Social Work, 330 Parkway Office Bldg., Asheville, N. C. 28801.
Cooperating group(s): County Departments of Public Welfare in Western North Carolina; U. S. Department of Health, Education, and Welfare.
Publications: Publication planned in social work journals.

25-RI-1 WELFARE HISTORIES OF AFDC FAMILIES--A FIVE-YEAR FOLLOWUP OF 200 FIRST-TIME AFDC RECIPIENTS IN SANTA CLARA COUNTY

Purpose: To examine the experience of families applying for AFDC in Santa Clara County, their social and economic characteristics, their life styles and problems, their experience with the welfare system while on aid, and how this may have subsequently affected their lives.
Subjects: 200 families randomly drawn from those families who went on AFDC for the first time in Santa Clara County during fiscal year 1963-1964.
Methods: Staff reviewed cases and completed a schedule designed to obtain information on social characteristics, problems identified, aid history, on-off pattern, contact pattern with welfare staff, etc. During field study, 117 families in the sample were interviewed to determine their present situation and impressions of their experience with the welfare program. Data were subjected to multivariate analysis; typologies of aid history, problem category, and service contact pattern were developed and compared.
Findings: Problems, characteristics, and services are not related in any systematic way except for age and minority status. Services do not relate to problem categories, but are randomly distributed by problem type, although certain aid history types receive most of the services.
Duration: July 1968-July 1969.
Investigator(s): Margaret G. Harrison, M.S.W., Supervising Social Service Analyst, Santa Clara County Welfare Department, 55 W. Younger Ave., San Jose 95114; and Dorothy H. Miller, D.S.W., Director of Research and President, Scientific Analysis Corporation, 4339 California St., San Francisco, Calif. 94118.
Cooperating group(s): California Department of Social Welfare.
Publications: Limited number of copies of report available from Santa Clara County Welfare Department; to be submitted to publications relating to the field of public welfare.

25-RJ-1 A STUDY OF SELECTED FACTORS IN INITIAL TELEPHONE INTERVIEWS WITH PARENTS IN RELATION TO FOLLOW-THROUGH IN THE EVALUATION AND TREATMENT PROCESS IN A CHILD GUIDANCE CLINIC

Purpose: To provide objective data by which to make early identification of those families unlikely to maintain more than a brief contact with a child guidance clinic. Such data may permit more efficient use of staff time and more effective service to short-term clients.
Subjects: All 400-450 families applying to the Framingham Youth Guidance Center for one year beginning July 1, 1969.
Methods: Selected factors in initial telephone interviews will be recorded by the social workers in charge of first telephone contact with families. These factors will then be analyzed in relation to outcome factors, measuring the extent to which families continue through the evaluation and treatment process.
Duration: Fall 1968-Spring 1971.
Investigator(s): Patricia L. Ewalt, M.S., Assistant Chief Social Worker, Margrit Cohen, M.S., Chief Social Worker, and Stanley E. Kader, Ph.D., Chief Psychologist, Framingham Youth Guidance Center, 88 Lincoln St., Framingham, Mass. 01701.
Publications: Publication planned in professional journals.

25-RJ-2 MERRILL-PALMER FOSTER GRANDPARENT RESEARCH PROJECT

Purpose: To evaluate effects of a foster grandparent program, whereby financially impoverished elderly people over age 60 were employed to provide individualized care for institutionalized children, on the social, emotional, and intellectual functioning of the infants and young children, and on the emotional and physical well-being of the foster grandparents.
Subjects: 36 foster grandparents and 22 controls, ages 61-77; 155 institutionalized infants and young children, 97 experimental and 58 controls.
Methods: Subjects were studies longitudinally over a four-month to two-year period. Foster grandparents and controls were interviewed at start of and during a two-year period, and foster grandparents were observed and rated by supervisors. Data were quantified and analyzed. Infants and children were studied longitudinally in a pre- and post- one- and two-year design by means of standardized tests and assessment instruments, rating scales, interviews, and observational techniques. Control group was also studied longitudinally, and a variety of special cross-sectional studies were made utilizing standardized developmental scales, timed observations, and other techniques to assess comparative status of experimental and control children.
Duration: December 1965-November 1968.
Investigator(s): Rosalyn Saltz, M.Ed., Human Development Faculty, and Project Director, Foster Grandparent Research Project, Merrill-Palmer Institute, 71 E. Ferry Ave., Detroit, Mich. 48202.
Cooperating group(s): Catholic Social Services of Wayne County, Mich.; Sarah Fisher Home, Farmington, Mich.; Catholic Social Services of Baltimore, Md.; St. Vincent Children's Home, Timonium, Md.; U. S. Office of Economic Opportunity; Administration on Aging, Social and Rehabilitation Service, U. S. Department of Health, Education, and Welfare.
Publications: In Explorations in the Psychology of Stress and Anxiety, Byron Rourke (Ed.). Toronto; Longmans, 1969; mimeographed technical reports available from Administration on Aging or Merrill-Palmer Institute.

25-RL-1 CHILD SEPARATION IN BRITISH COLUMBIA: AN EPIDEMIOLOGICAL ANALYSIS

Purpose: To develop a typology of child separation using the following dimensions: (1) whether or not the childcaring agency applies legal sanctions against the family at the time the child is admitted to care, (2) whether or not the social worker involved in the admission indicates that a parental norm violation is the precipitating factor in separation, (3) whether or not the child-separated family perceives agency intervention as legitimate otherwise; to relate the above typology to demographic characteristics of child-separated families; to examine in depth the preseparation experiences of families living in communities with varying overall rates of child separation. Comparative analyses will be carried out of the family data from each of the communities chosen. It is expected that these analyses will illuminate the interplay of community, agency, and family variables in the process of child separation.
Subjects: 450 child-separated families selected from communities representative of welfare constituencies within British Columbia.
Methods: Interviewing of child-separated families to obtain data regarding demographic characteristics, preseparation events, and degree of alienation from childcaring agency and community. Accompanying social worker questionnaire designed to obtain a brief history of agency-family contacts, worker perception of family, and amount of preseparation planning between agency and family.
Findings: Preliminary analysis of one dimension of the typology (worker's indication of presence of absence of a parental norm violation) has proven to be significantly related to all demographic characteristics of child-separated families. These interim findings were obtained by the use of multivariate analysis techniques and to a lesser extent multiple linear regression analysis.
Duration: September 1968-August 1970.
Investigator(s): K. Douglas Matheson, M.S.W., and Davis C. Neave, M.S.W., British Columbia Department of Social Welfare, 208/ 800 Cassiar St., Vancouver 6, British Columbia, Canada.
Cooperating group(s): University of British Columbia School of Social Work; Welfare Grants Division, Department of National Health and Welfare of Canada.
Publications: Report to be available from British Columbia Department of Social Welfare, and Department of National Health and Welfare of Canada upon completion of study.

HEALTH SERVICES

25-SA-1 THE DELIVERY OF PRIMARY MEDICAL CARE IN A RURAL COMMUNITY

Purpose: To study the immunization status of preschool children in a rural town as an indication of delivery of primary health care, and to investigate the need and/or desire for a community nurse.
Subjects: 178 preschool children in Norwich, Vt., representing 98 percent of the three-month-old to prekindergarten age group.
Methods: In a door-to-door survey of the town, a questionnaire was used to interview mothers of preschoolers regarding their child's immunization status, special health problems and peripheral health care of the preschooler, and the desire for a community nurse.
Findings: The town proved to be well immunized. Also, there was a definite profile for the well immunized child which differed significantly from that of the poorly immunized child.
Duration: June-September 1968.
Investigator(s): Linda Quan, M.D. Candidate, University of Washington Medical School, Seattle, Wash. 98105; and James R. Hughes, M.D., Clinical Instructor in Medicine--Pediatrics, Dartmouth Medical School, and Consultant, New Hampshire Bureau of Maternal and Child Health, Hitchcock Clinic, Hanover, N. H. 03755.
Cooperating group(s): Hood Foundation.

25-SA-2 THE DELIVERY OF HEALTH CARE TO CHILDREN

Purpose: To examine and evaluate present status of the delivery of health care to children and the important forces influencing it.
Methods: Will review and interpret existing health care data from private, partnership and group practice, hospital outpatient and emergency health care programs, and federally funded programs. This information will enable the Academy of Pediatrics to better define deficiencies and to make recommendations for improved techniques and systems in the delivery of health care to children. Data will also be used in the further development of Model Cities programs, Regional Medical programs, and Comprehensive Health Care plans.
Duration: July 1969-June 1970.
Investigator(s): Carl C. Fischer, M.D., Project Director, and Chairman, Council on Pediatric Practice, and Andrew Twaddle, Ph.D., Assistant Project Director, American Academy of Pediatrics, 1801 Hinman, Evanston, Ill. 60204. (Reported by Frances Curry, Librarian, American Academy of Pediatrics.)
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SA-3 RURAL-URBAN NEW HAMPSHIRE MCH SURVEY

Purpose: To compare maternal and child health services in rural and urban New Hampshire; to identify the high risk mother; to determine which criteria are important in evaluating the quality of health care a child is receiving; and to ascertain what types of maternal and child health facilities mothers would use if they were available.

Subjects: Families of 825 babies born between January 1 and June 30, 1968, in rural Grafton County and in the Model Cities population in Manchester, N. H.
Methods: Information from birth certificates will be coded and families of the infants traced and interviewed. Data from both sources will be computer-analyzed. Five Dartmouth medical students and nine nursing students from Mary Hitchcock Memorial Hospital will act in "patient advocate" role, help in referrals, and offer direct health care under supervision of a pediatrician.
Duration: June 1969-not reported.
Investigator(s): James R. Hughes, M.D., Clinical Instructor in Medicine--Pediatrics, Dartmouth Medical School, and Consultant, New Hampshire Bureau of Maternal and Child Health, Hitchcock Clinic, Hanover, N. H. 03755.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SA-4 USE OF ALLIED HEALTH WORKERS IN AMBULATORY PEDIATRICS

Purpose: To obtain information and opinion concerning allied health worker utilization in ambulatory pediatrics, particularly how and by whom tasks are carried out and pediatricians' opinions regarding type of worker who should perform such tasks; to evaluate the effect of an expanded nursing role in the volume of care given, distribution of pediatrician time, and reaction of consumers.
Methods: A mail questionnaire delineating about 60 tasks was sent to the membership of the American Academy of Pediatrics (7,000). Responses will be related to such characteristics as year of graduation from medical school, location of practice by region and urban area, solo v. group practice, volume of practice, kinds of office visits, class of clientele, and number and types of health workers. As a followup, professional nurses will be queried regarding their educational background and their opinions on tasks and nursing roles. These data will be analyzed and compared with data from pediatrician employer.
Duration: July 1967-June 1970.
Investigator(s): John P. Connelly, M.D., Director, Bunker Hill Health Center of Massachusetts General Hospital, Harvard Medical School; Priscilla M. Andrews, R.N., Nursing Director of Pediatric Nurse Practitioner Program, Alfred Yankauer, M.D., Senior Research Associate, Department of Maternal and Child Health, and Jacob J. Feldman, Ph.D., Associate Professor of Biostatistics, Harvard School of Public Health, Boston, Mass. 02115.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SD-1 ASSESSMENT OF CHILD HEALTH CARE DELIVERY AND ORGANIZATION

Purpose: To develop forms and systems for the national uniform statistical reporting of the Children and Youth projects; to assess the impact of unique organizational patterns on the delivery of health care services in the C&Y projects.
Methods: During the first year the system and elements for national reporting were determined; during the next three years service projects were assisted in developing selected subsystems for their recordkeeping and self-evaluation; the fifth year will be directed toward assessing the unique patterns of health care delivery of selected projects.
Duration: July 1966-not reported.

Investigator(s): Vernon E. Weckwerth, Ph.D., Project Director and Professor, and David D. DeKarna, M.A., Assistant Project Director and Research Fellow, College of Medical Sciences, University of Minnesota School of Public Health, Minneapolis, Minn. 55455.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SD-2 KANSAS 1968 PERINATAL CASUALTY STUDY

Purpose: To analyze Kansas 1968 perinatal casualty data, including trend type information.
Methods: Main focus will be socioeconomic, using such variables as age, race, educational attainment of parents, and number of prenatal visits.
Duration: July-December 1969.
Investigator(s): Ben Coates, B.A., Statistician, and Irvin Franzen, M.P.H., Project Director, and Director, Division of Vital Statistics; Patricia T. Schloesser, M.D., Director, and Helen Martin, R.N., Consultant Nurse, Division of Maternal and Child Health, Kansas Department of Health, State Office Building, Topeka, Kan. 66612.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SD-3 INFLUENCE OF MEDI-CAL ON PERINATAL MORTALITY

Purpose: To determine whether obstetrical services provided to Medi-Cal recipients have influenced perinatal mortality and prematurity rates.
Subjects: Women who deliver their babies under Medi-Cal; their infants: approximately 675,000 live births and fetal deaths in California during 1967 and 1968; an additional 340,000 1969 births.
Methods: Such data as maternal age, parity, race, birthweight, gestation, prenatal care, etc. will be used as a basis for the study. Will calculate crude and specific perinatal mortality and prematurity rates for 1967, 1968, and 1969, and test for significant differences between Medi-Cal patients and comparison groups. Will control for factors which may affect the rates by adjusting to standard rates and by using case control chi-square and multivariate statistical methods.
Duration: January 1970-not reported.
Investigator(s): Edwin W. Jackson, M.D., Chief, Epidemiology Unit, and Frank D. Norris, M.A., Senior Public Health Statistician, Bureau of Maternal and Child Health, California Department of Public Health, 2151 Berkeley Way, Berkeley, Calif. 94704.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SE-1 EVALUATION OF SEX EDUCATION AND CONTRACEPTIVE SERVICES FOR UNMARRIED TEENAGE GIRLS

Purpose: To determine (1) the acceptance of a community-based program of sex education and birth control services to unmarried teenage girls, (2) the effects of the program on the number of first births to unmarried girls, the age of marriage, length of schooling, etc., and (3) background characteristics of participators and nonparticipators.
Subjects: Unmarried teenage girls and their families living in nine census tracts in southwest Baltimore, Md.

Methods: The survey method is being used to collect family data, mother's attitudes towards the educational and contraceptive programs, and socioeconomic characteristics. Participant observation is used to obtain information about the community, and the sex attitudes and behavior of teenagers. Lengthy interviews and questionnaires are also part of the data-gathering procedures.
Duration: January 1969-January 1971.
Investigator(s): Tom T. Sasaki, Ph.D., Associate Professor, Department of Population Dynamics and Family Health, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. 21205.
Cooperating group(s): Planned Parenthood; Urban League; Ford Foundation.
Publications: Reports and journal articles planned.

25-SE-2 FAMILY PLANNING: CLINIC AND COST EVALUATION--A CROSS-SECTIONAL CLINIC COST STUDY

Purpose: To test (1) the feasibility of collecting intensive data relating to clinic operation and patient characteristics by means of trained interviewers not associated with the clinics studied, and (2) the methodology developed for evaluating clinic performance; to evaluate the effectiveness of family planning clinics. (See Research Relating to Children, Bull. No. 23-SE-1.)
Methods: A large body of quantitative and qualitative data was obtained from 34 relatively large family planning clinics. Multivariate regression analysis will be used. A comprehensive research protocol has been designed.
Duration: July 1969-June 1970.
Investigator(s): Eleanor M. Snyder, Ph.D., Director, Charles R. Dean, Ph.D., Associate Director, and Morton A. Silver, Ph.D., Assistant Director, Department of Research, Planned Parenthood Federation of America, Inc., 666 Madison Ave., New York, N. Y. 10019.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SE-3 FAMILY PLANNING SERVICES AND AFDC FAMILIES

Purpose: To collect and analyze data from the various states on steps taken to implement the 1967 Social Security amendments dealing with mandatory provision of family planning services to AFDC families receiving public assistance.
Methods: Data on legislation, policies, plans, and practices will be collected by mail questionnaires, direct visits, and telephone inquiries. Relationships of results to demographic and ecological characteristics will be explored. Will attempt to develop feasible procedures for periodic reporting of basic information.
Duration: July 1969-not reported.
Investigator(s): Leonard S. Kogan, Ph.D., Professor of Psychology, and Director, and Joseph Goldman, Research Associate, Center for Social Research, City University of New York, New York, N. Y. 10036.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SE-4 TEENAGE PREGNANCY: THE TIMING OF PREVENTIVE INTERVENTIONS

Purpose: To provide data relevant to factors affecting the choice of timing of preventive interventions; specifically, to determine the average lapse of time and its variability between the age of menarche and age of first conception according to age of menarche, coital activity, contraceptive knowledge and practice, socioeconomic status, and knowledge of reproductive physiology.
Subjects: 500 unmarried pregnant teenage girls known to the Protective Services Division of the Baltimore City Department of Social Services; 500 matched unmarried nonpregnant girls from the city public schools; a sample of the city live births to girls under 18.
Methods: The development of effective intervention programs to prevent first pregnancies to teenagers is dependent not only upon the kind of intervention but upon timing the interventions to fit probable ages of fecundity and levels of sexual activity of selected groups of teenagers. The sample of the live births to girls under 18 will be collated with hospital history data concerning age of menarche. No information on sexual activity will be obtained from the sample of unmarried nonpregnant girls. The first 18 months will be spent in gathering the data.
Duration: July 1969-not reported.
Investigator(s): Wallace C. Oppel, D.S.W., Assistant Professor, Department of Population and Family Health, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. 21205.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SF-1 EXTENDING PREADMISSION AND AFTERCARE SERVICES

Purpose: To demonstrate the value of community based hospital services in a 13-county area served by Richmond State Hospital, Richmond, Ind.; specifically, to test the hypothesis that preadmission and aftercare services to patients and family members are significantly related to a reduced length of hospitalization and length of stay away from the hospital.
Methods: Richmond State Hospital Community Social Service Offices were established in Fort Wayne, Muncie, and Richmond, Ind. Initial concentration of community social workers was upon preadmission and aftercare services. The latter were then extended to include a period of release planning; preadmission services were generally limited to children, adolescent, and geriatric applicants. Control group received the usual hospital social services relating to admission, release planning, and aftercare, but without consistent mobilization of resources during admission, release planning, and aftercare periods.
Duration: May 1965-May 1970.
Investigator(s): J. F. Klepfer, M.D., Superintendent, and Anne Withers, M.A., Director of Social Service, Richmond State Hospital, Richmond, Ind. 47374.
Cooperating group(s): National Institute of Mental Health, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SF-2 EFFECTS OF CLINIC STRUCTURE ON PEDIATRICIAN'S ROLE

Purpose: To examine the role of the pediatrician in five pediatric outpatient clinics in Baltimore, Md.; specifically, to test certain hypotheses concerning the relationship between characteristics of the clinic organizations and (1) amount of role-conflict pediatrician experiences, (2) his role performance, and (3) his role satisfaction.

Methods: Data will be collected by interviews with clinic physicians and nonphysician personnel, systematic and informal observation of clinic operations, and review of clinic documents. Will measure the amount and mechanisms of physicians' control over their working conditions, the level of cohesiveness and professional respect between the physicians in the clinic, and the basis of professional status in the clinic and in the parent hospital.
Duration: 1967-1970.
Investigator(s): Constance A. Nathanson, Ph.D., Assistant Professor, and Gerald Wiener, Ph.D., Associate Professor, Department of Population and Family Health, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. 21205.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SF-3 ROCHESTER CHILD HEALTH STUDIES

Purpose: This is a program of research in community child health which attempts to determine (1) the health and illness behavior of families with children, and (2) the effectiveness, cost, and acceptance of child health nurses as assistants to pediatricians in private practice. (See Research Relating to Children, Bull. No. 21-CF-5.)
Subjects: A random sample of 1,000 families with children in Monroe County; a second random sample of 500 families; an additional small sample of families in two inner city ghettos.
Methods: Will study demographic, health and illness, social, and attitudinal factors (independent variables) and utilization and lack of utilization of health services (dependent variables). By factor analysis will assess relative importance of various factors in the use of health care for groups of children. The sample of 500 families will be drawn the following year and a detailed evaluation made by use of diaries and interviews of the health and illness behavior for individual families, with emphasis on the role of family life crisis in such behavior. The sample of families in two inner city ghettos will be interviewed and assessment made of the changes in utilization of health care services.
Duration: July 1969-not reported.
Investigator(s): Robert J. Haggerty, M.D., Professor and Chairman, Department of Pediatrics, University of Rochester School of Medicine and Dentistry, Rochester, N. Y. 14620.
Cooperating group(s): Health Services and Mental Health Administration, Public Health Service, U. S. Department of Health, Education, and Welfare.

25-SG-1 PROJECT EARLY

Purpose: To evaluate a prevention-oriented counseling service aimed at minimizing adverse effects of family conflict and disruption on preschool children.
Subjects: Parents of families in which all children are under age six; families reached through nursery schools, day care programs, Headstart project, pediatricians, etc.
Methods: Family counseling carried on concurrently with family life education, the latter providing educational components reinforced with group methods.
Findings: Results based on case evaluation indicate that most parents come to the counseling service before their young children show specific disturbances, and that conflicts between parents are generally ameliorated.

Duration: 1966-continuing.
Investigator(s): Joy Rich, M.S.W., Senior Social Worker, Family Service Association of Nassau County, 286 Old Country Rd., Mineola, N. Y. 11501. (Reported by Robert Sunley, M.S.W., Associate Executive Director.)
Publications: Paper presented at National Conference on Social Welfare, New York, May 1969: copies available.

25-SG-2 FAMILY CHANGE, HEALTH BEHAVIOR, AND MENTAL HEALTH

Purpose: To relate family change to health change; specifically, to determine which factors over time affect family structure and function, and to relate these changes to health status and medical care; to evaluate effects of current health, education, and welfare programs upon family structure and function, determining the way in which such changes, or lack of them, influence the effectiveness of these programs; and to develop a technique for the study of the family as a health unit utilizing modern electronic computer technology.
Subjects: Representative families.
Methods: Families are classified according to changes in their composition and mode of operation so as to produce a measure of family stability or integration which will be related to the changing physical and mental health status of the family and its varying patterns of medical care. Various types of family structures will be analyzed according to degrees of organization or disorganization. Study is longitudinal and will cover three periods of change, representing two periods of five years for which data already exist, and one period for which data will be collected.
Duration: January 1968-December 1970.
Investigator(s): Raúl A. Muñoz, M.S.W., Assistant Research Professor, Department of Preventive Medicine and Public Health, University of Puerto Rico School of Medicine, San Juan, Puerto Rico 00905.
Cooperating group(s): Public Health Service, U. S. Department of Health, Education, and Welfare.
Publications: Analysis of first two time periods completed October 1969.

25-SH-1 CHILD ACCIDENTS IN SCOTLAND

Purpose: To determine the effect of variations in social conditions upon child pedestrian accident rates by examining the rates in several Scottish towns, with reference to each area's social, economic, and housing conditions.
Methods: Accident report forms involving child pedestrians are studied at police headquarters in Edinburgh, Glasgow, Dundee, Aberdeen, and Paisley, Scotland; home to school distances for children involved in road accidents are determined. Data are stored on punch cards and eventually will be compared with information obtained from comparable areas in England.
Duration: 1968-1970.
Investigator(s): J. W. Tyler, B.Sc., Senior Experimental Officer, and M. S. Walker, B.Sc., Assistant Experimental Officer, Road Research Laboratory, Great Britain Ministry of Transport, Crowthorne, Berks, England.

ORGANIZATIONS

ALABAMA

Auburn University
School of Home Economics 25-NB-2
University of Alabama
Medical Center 25-GC-6

ARIZONA

University of Arizona 25-NG-6

CALIFORNIA

California State College, Los Angeles
Department of Guidance 25-OB-1
Chico State College
Department of Education 25-PB-2
Reading Center 25-PB-2
Children's Home Society of California
25-RD-2
Children's Hospital 25-GF-2
Fairview State Hospital 25-HH-1
Foundation of Research in Education
25-KK-1
Hacker Clinic 25-FC-2
Institute for Child Behavior Research
25-JB-3
Kaiser Foundation Hospital 25-AA-5
Kennedy Child Study Center 25-QE-1
Langley Porter Neuropsychiatric
Institute 25-DB-2
Mount Zion Hospital and Medical Center
25-RF-3
Pacific Medical Center 25-AA-10
Porterville State Hospital 25-HJ-1
Reiss-Davis Child Study Center 25-JA-1
Santa Clara County Welfare Department
25-RI-1
Scientific Analysis Corporation 25-JB-4,
25-RI-1
Sonoma State Hospital 25-HJ-2
Southern California Psychoanalytic
Institute 25-EA-5
Stanford University
Committee on Linguistics 25-DH-2
Department of Psychology 25-DC-9,
25-DE-3, 25-EE-1
Laboratory of Hypnosis Research
25-EE-1
School of Medicine 25-AA-10, 25-DB-3,
25-GC-5
State Department of Motor Vehicles
25-FC-5

CALIFORNIA (cont'd.)

State Department of Public Health 25-SD-3
University of California
Berkeley
Department of Psychology 25-EB-2
Institute of Human Development
25-AA-6
School of Public Health 25-AA-5,
25-CB-2
School of Social Welfare 25-EB-1
Los Angeles
Department of Psychiatry 25-EA-5
Department of Psychology 25-DE-3
Medical Center 25-JE-1
Neuropsychiatric Institute 25-JG-1
San Francisco
Medical Center 25-AA-10
University of Southern California
School of Medicine 25-GF-2

COLORADO

Children's Asthma Research Institute
and Hospital 25-GC-4
Child Research Council 25-AA-1
University of Colorado
Department of Psychology 25-FC-1
Department of Sociology 25-KP-3
Division of Social Sciences 25-KJ-1
Institute of Behavioral Science
25-FC-1, 25-JB-6
University of Denver
Department of Psychology 25-CH-2

CONNECTICUT

Yale University
School of Medicine 25-OF-5

DISTRICT OF COLUMBIA

Education Study Center 25-QE-3
General Electric Co. 25-QE-4

FLORIDA

Florida Atlantic University
Department of Education 25-OF-1
Florida State University
Department of Sociology 25-NG-7
Miami Sunland Training Center 25-HC-7
Nova University 25-DC-4

FLORIDA (cont'd.)

University of Florida
School of Medicine 25-NC-1
University of Miami
Department of Psychology 25-FC-3, 25-HC-7

GEORGIA

Emory University
School of Medicine 25-RC-2
University of Georgia
College of Education 25-EF-1
Department of Psychology 25-DF-5, 25-EF-1
Research and Development Center in Educational Stimulation 25-DF-5
School of Social Work 25-RA-3
Child Research Field Station 25-RH-2

HAWAII

University of Hawaii
College of Education 25-QE-2
Department of Food and Nutritional Sciences 25-CB-1
Department of Human Development 25-CB-1

ILLINOIS

DePaul Settlement and Daycare Center 25-RF-2
Illinois Children's Home and Aid Society 25-RD-1
Infant Welfare Society of Chicago 25-RF-2
Institute for Juvenile Research 25-LF-3
Loyola University
Department of Psychology 25-DC-2
Michael Reese Hospital
Institute for Psychosomatic and Psychiatric Research and Training 25-KS-1
Northwestern University
Medical School 25-RF-2
Schaumberg School District 54 25-QH-1
University of Chicago
Center for Urban Studies 25-NE-2, 25-RA-2
Department of Education 25-OA-1
Department of History 25-NE-2
School of Social Service Administration 25-RA-2
University of Illinois
Bureau of Educational Research 25-NE-1
Department of Sociology 25-NB-1
Medical Center 25-AA-15

INDIANA

Goshen College
Department of Sociology and Anthropology 25-NG-4
Purdue University
Department of Psychology 25-EA-3, 25-EA-4
MPATI, Inc. 25-PB-6
Richmond State Hospital 25-SI-1
Tri-State College
Department of Psychology 25-KE-1

IOWA

Iowa State University
Department of Sociology-Anthropology 25-KP-2
University of Northern Iowa
Educational Clinic 25-MC-1

KANSAS

Institute of Logopedics 25-CH-1
Johnson County Juvenile Hall 25-DD-2
Parsons State Hospital and Training Center 25-HC-4
State Department of Health 25-SD-2
University of Kansas
Medical Center 25-EA-1

KENTUCKY

Kentucky Child Welfare Research Foundation, Inc. 25-QE-5

LOUISIANA

Louisiana State University
School of Home Economics 25-NA-1
Southeast Louisiana Hospital 25-JI-3

MARYLAND

Baltimore County Board of Education 25-OA-3
Johns Hopkins University
School of Hygiene and Public Health 25-CE-1, 25-SE-1, 25-SE-4, 24-SF-2
Rosewood State Hospital 25-HC-2
State Department of Education 25-PA-1
University of Maryland
Medical School 25-MB-2

MASSACHUSETTS

Boston College
Department of Sociology 25-OI-1
Boston Juvenile Court Clinic 25-KJ-2
Boston University
Department of Psychology 25-JB-5, 25-MB-1

MASSACHUSETTS (cont'd.)

Children's Hospital Medical Center 25-KJ-2
Clarke School for the Deaf 25-GC-7, 25-GE-3
Dorchester Child Guidance Center 25-JH-1
Framingham Youth Guidance Center 25-RJ-1
Harvard University 25-DD-1
  Law School 25-KS-2
  Medical School 25-DC-5, 25-KJ-2, 25-SA-4
  School of Public Health 25-AA-2, 25-AA-4, 25-SA-4
Judge Baker Guidance Center 25-KJ-2
Kennedy Memorial Hospital 25-DD-1
Massachusetts General Hospital 25-DC-5, 25-JD-1, 25-SA-4
Massachusetts Mental Health Center 25-ED-1
McLean Hospital 25-JI-1
Metropolitan State Hospital, Waltham 25-FA-1
University of Massachusetts
  Department of Human Development 25-DH-1
Wellesley College
  Department of Psychology 25-LA-2

MICHIGAN

Merrill-Palmer Institute 25-RJ-2
Michigan State University
  College of Human Medicine 25-DF-1
  Department of Psychology 25-RH-1
  School of Police Administration and Public Safety 25-NC-3
Mott Foundation Program, Flint 25-GC-2
Neighborhood Service Organization, Detroit 25-RB-1
Oakland Community College 25-DE-4
University of Michigan
  Department of Political Science 25-NC-4
  Department of Psychology 25-OF-2, 25-OG-2
  Institute for Social Research 25-KC-1, 25-OF-2, 25-OG-2
  School of Social Work 25-OF-2
Wayne State University
  Department of Audiology 25-DF-4
  Department of Psychology 25-DE-4
Western Michigan University
  Department of Speech 25-PB-3

MINNESOTA

Amherst H. Wilder Foundation
  Child Guidance Clinic 25-LF-1

MINNESOTA (cont'd.)

Brainerd Public Schools 25-JH-3
University of Minnesota
  Department of Industrial Education 25-QG-1
  Department of Sociology 25-NB-1, 25-NG-5
  School of Public Health 25-SD-1
Youth Research Center 25-RB-2

MISSISSIPPI

Alcorn A. & M. College 25-OE-1

MISSOURI

Jewish Employment and Vocational Service 25-GE-2
St. Louis University
  Child Development Clinic 25-HG-1
  Department of Psychology 25-DE-5, 25-HG-1
University of Missouri
  Center for the Study of Metropolitan Problems in Education 25-NC-2
  Department of Speech and Theatre 25-DC-1

NEBRASKA

University of Nebraska
  College of Medicine 25-JC-1

NEW HAMPSHIRE

Dartmouth College
  Medical School 25-SA-1, 25-SA-3
New Hampshire Child Guidance Clinic 25-JB-5
State Bureau of Maternal and Child Health
  Hitchcock Clinic 25-SA-1, 25-SA-3

NEW JERSEY

Educational Testing Service 25-DA-1, 25-QE-6
E. R. Johnstone Training and Research Center 25-HC-1
Princeton University
  Department of Psychology 25-DE-3
Rutgers, The State University
  Department of Sociology 25-HA-1, 25-JD-2
St. Joseph's College
  Gengras Center 25-HA-1
State Home for Boys, Jamesburg 25-KR-1

NEW YORK

Board of Cooperative Educational Services, Yorktown Heights 25-[illegible]C-3

NEW YORK (cont'd.)

Briarcliff College
Department of Psychology 25-MC-2
Bronx Municipal Hospital Center
Children's Evaluation and Rehabilitation Clinic 25-JA-3
Child Welfare League of America, Inc. 25-RG-1
City University of New York
Center for Social Research 25-SE-3
City College
Department of Psychology 25-LC-1
Economic Opportunity Commission of Nassau County 25-RF-1
Family Service Association of Nassau County 25-DB-1, 25-SG-1
Fordham University 25-QE-2
Hofstra University
Child Development Center 25-OF-4
Hudson Guild Counseling Service 25-JH-2
Jewish Board of Guardians 25-NA-2, 25-RA-1
New York University
Bellevue Medical Center 25-PB-4
Department of Psychology 25-LC-1
Northeast Nassau Psychiatric Hospital 25-JI-4
Port Washington Schools 25-OF-3
Russell Sage Foundation 25-LC-1
State University of New York
Buffalo
Department of Anthropology 25-NG-1
Union College 25-AA-14
University of Rochester
School of Medicine and Dentistry 25-SF-3
William Alanson White Institute 25-JA-2
Yeshiva University
Albert Einstein College of Medicine 25-AA-8, 25-JA-3

NORTH CAROLINA

Duke University
Department of Psychology 25-GC-3
Department of Sociology 25-NB-3
Medical Center 25-GC-3
North Carolina Central University 25-HC-5
University of North Carolina
School of Medicine 25-JB-2
Wake Forest University
Department of Psychology 25-DE-2

OHIO

Antioch College
Fels Research Institute for the Study of Human Development 25-AA-3, 25-DC-7, 25-HC-6

OHIO (cont'd.)

Case Western Reserve University
Department of Psychology 25-DG-1
Department of Sociology 25-LA-3
School of Medicine 25-AA-12
Family Service of the Cincinnati Area 25-LF-2
Montgomery County Juvenile Court 25-HB-1
Ohio State University
College of the Arts 25-PC-1

OKLAHOMA

University of Oklahoma
Medical Center 25-GE-1

OREGON

Oregon Research Institute 25-KK-2
State System of Higher Education 25-OG-1
University of Oregon
Dental School 25-AA-11
Medical School 25-GF-2
Research and Training Center in Mental Retardation 25-HH-2
School of Health, Physical Education, and Recreation 25-AA-7

PENNSYLVANIA

Bryn Mawr College
Graduate Department of Social Work and Social Research 25-RD-3
Children's Aid Society of Pennsylvania 25-RD-3
Children's Hospital 25-BA-2
Jefferson Medical College Hospital 25-BA-2
Pennsylvania State University 25-DC-6
Philadelphia Center for Craniofacial Biology 25-AA-9
Philadelphia Center for Research in Child Growth 25-AA-9
Philadelphia Psychiatric Center 25-JY-1
Pittsburgh Diocese Schools 25-HG-1
Swarthmore College
Department of Anthropology 25-NG-3
University of Pennsylvania
Department of Psychology 25-EF-2
Department of Sociology 25-RC-1
Division of Graduate Medicine 25-AA-9
Graduate School of Education 25-EW-2

RHODE ISLAND

Rhode Island Hospital 25-HC-3

SOUTH DAKOTA

Yankton State Hospital 25-JI-5

TENNESSEE

Vanderbilt University
Department of Psychology 25-HC-6

TEXAS

Scott and White Clinic 25-JI-2

VIRGINIA

University of Virginia
School of Education 25-PB-7

WASHINGTON

University of Washington
Department of Psychology 25-DC-8
Medical School 25-SA-1

WISCONSIN

Mendota State Hospital 25-JP-1
University of Wisconsin
Center for Studies in Vocational and Technical Education 25-QG-2
School of Education 25-OA-2
Wisconsin State University
Department of Educational Psychology 25-DF-3
Department of Psychology 25-EA-3

NATIONAL

American Academy of Pediatrics 25-SA-2
National Society for the Prevention of Blindness, Inc. 25-GD-1
Planned Parenthood Federation of America, Inc. 25-SE-2
U. S. Government
Health, Education, and Welfare
Office of Child Development
Children's Bureau 25-AA-17
Public Health Service
National Center for Health Statistics 25-AA-12
National Institute for Child Health and Human Development 25-AA-12
National Institute of Mental Health 25-AA-16, 25-NG-2, 25-NG-4
National Institute of Neurological Diseases and Stroke 25-AA-13

NATIONAL (cont'd.)

U. S. Government
Veterans Administration
Center, Los Angeles 25-QE-1
Hospital, Oklahoma City 25-DE-1
Hospital, San Francisco 25-RD-2

CANADA

Allan Memorial Institute 25-DC-10
British Columbia Department of Social Welfare 25-RL-1
Bróra Center 25-BA-1, 25-DB-4
Carleton University
Department of Psychology 25-FC-4
McGill University
Department of Psychology 25-EA-2
Medical School 25-DC-10
McMaster University
Department of Psychiatry 25-DF-2, 25-JB-7
Montreal Children's Hospital 25-EA-2, 25-GA-1
Northwestern Health Unit, Kenora 25-FC-6
Toronto Board of Education 25-LA-1
University of Montreal
Department of Psychology 25-DC-10
Psychology Institute 25-GC-1
University of Western Ontario 25-CC-1
School of Medicine 25-DD-3
Winnipeg City Health Department 25-FC-7

ENGLAND

Great Britain Ministry of Transport 25-SH-1
University of York
Language Teaching Center 25-PB-5

FINLAND

Svenska Handelshogskolan 25-NG-7

FRANCE

Institut National d'Etudes Demographiques 25-NG-7

GERMANY

Max Planck Institut fuer Bildungsforschung 25-NG-7

ISRAEL

Hebrew University 25-NG-7
Ministry of Social Welfare 25-FC-8

JAPAN

Osaka City University 25-NG-5

PUERTO RICO

University of Puerto Rico
School of Medicine 25-SG-2

SCOTLAND

University of Edinburgh
Old College
Department of Criminal Law
and Criminology 25-KP-1

WALES

University of Wales
Department of Education 25-PB-1

YUGOSLAVIA

University of Zagreb 25-NG-7

INVESTIGATORS

Adamo, Cynthia 25-HC-7
Adkins, Dorothy C. 25-QE-2
Aldous, Joan 25-NG-5
Alker, Leslie N. 25-HC-7
Allen, Doris V. 25-DF-4
Allen, Gordon 25-NG-4
Allen, Martin G. 25-AA-16
Allen, Robert M. 25-HC-7
Alper, Thelma G. 25-LA-2
Amir, Menachem 25-FC-8
Anderson, Scarvia 25-QE-6
Andrews, Priscilla M. 25-SA-4
Angle, Carol R. 25-JC-1
Archambault, Yves 25-KE-2
Archambo, Judith P. 25-QE-5
Armenti, Simma 25-HH-1
Arnott, Alison A. J. E. 25-KP-1

Ballif, Bonnie 25-QE-2
Banham, Katharine M. 25-GC-3
Baratz, Joan C. 25-QE-3
Barclay, Allan G. 25-HG-1
Barton, Ann Caudle 25-NB-2
Bates, Karla K. 25-HH-1
Bayer, Leona M. 25-AA-10
Bayley, Nancy 25-AA-6
Beal, Virginia A. 25-AA-1
Beardsley, Susan K. 25-LA-2
Beaton, Albert 25-QE-6
Behan, Lawrence G. 25-JI-5
Belpaire, François 25-KE-2
Benning, James J. 25-EA-3
Berendes, Heinz W. 25-AA-13
Berman, Gerald S. 25-LA-3
Berman, Yitzchak 25-FC-8
Bernal, Martha E. 25-JG-1
Bing, Mayin L. 25-FA-1
Birns, Beverly 25-AA-8
Black, F. William 25-DD-1
Block, Jack 25-EB-2
Bonnier-Tremblay, Francine 25-GC-1
Boothroyd, Arthur 25-GE-3
Borgman, Robert 25-RH-2
Boyd, Edith 25-AA-1
Boyd, Joseph L. 25-QE-6
Boykin, William C. 25-OE-1
Brent, Sandor B. 25-DE-4
Bridger, Wagner H. 25-AA-8
Brim, Orville G., Jr. 25-LC-1
Buck, Carol 25-DD-3
Bullard, Dexter M., Jr. 25-KJ-2
Burnett, Jacquetta Hill 25-NE-1

Cahnman, Werner J. 25-JD-2
Caldwell, Stephen 25-GE-1
Caliguri, Joseph P. 25-NC-2
Callaway, Enoch 25-DB-2
Campione, Joseph C. 25-DC-8
Cassell, John T. 25-HA-1
Cecil, Henry S. 25-BA-2
Check, John F. 25-DF-3
Chow, Bacon F. 25-CE-1
Clark, Frank 25-RC-2
Clark, John P. 25-NB-1
Clarke, H. Harrison 25-AA-7
Coates, Ben 25-SD-2
Cobb, Joseph A. 25-KK-2
Cohen, Margrit 25-RJ-1
Cohen, William C. 25-NE-2
Coleman, L. Thomas 25-BA-2
Coleman, Margaret 25-DC-5
Connelly, John P. 25-SA-4
Conners, C. Keith 25-DC-5
Constantiniais, P. 25-FC-7
Coppin, Ronald S. 25-FC-5
Crawford, Patricia J. 25-LA-1
Crookes, Spencer H. 25-RD-1
Cross, Jane P. 25-DE-5
Cross, John F. 25-DE-5
Crosson, James E. 25-HH-2
Cutler, Jeri B. 25-HB-1
Cymbalisty, B. Y. 25-KR-1

D'Asaro, Michael J. 25-QE-1
Davis, W. M., Jr. 25-RF-1
Dean, Charles R. 25-SE-2
DeSaix, Christine 25-RH-2
Dieker, Richard J. 25-PB-3
Diner, Harold 25-JA-3
Dodson, C. J. 25-PB-1
Dorne, William P. 25-OF-1
Douglas, Virginia 25-EA-2
Dudek, Stephanie 25-DC-10
Duncan, D. F. 25-DD-2
Duncan, Judith A. 25-KP-1

Edding, F. 25-NG-7
Edling, Jack V. 25-OG-1
Eichorn, Dorothy H. 25-AA-6
Eiduson, Bernice T. 25-JA-1
Eisenberg, Leon 25-DC-5
Emmerich, Walter 25-QE-6
Endsley, Richard C. 25-EF-1
Engen, Eugene P. 25-JI-5
Epps, Louise D. 25-JG-1
Epstein, Nathan B. 25-JB-7

Erdmann, James B. 25-DF-1
Ewalt, Patricia L. 25-RJ-1
Ewer, Phyllis A. 25-RC-2

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RESEARCH NOTES

BASIC RESEARCH ON THE READING PROCESS

The National Center for Educational Research and Development (formerly the Bureau of Research) has announced a new program of basic research on the reading process, called the Targeted Research and Development Program on Reading. It will support fundamental research, to be followed by invention and careful development of new instructional materials, practices, equipment, etc. For further information, write to the Director of the Center, Office of Education, U. S. Department of Health, Education, and Welfare, Washington, D. C. 20202.

CENTER FOR BEHAVIOR GENETICS AND EVALUATION

The Center for Behavior Genetics and Evaluation has been established at the University of Texas. This is an interdisciplinary center which will conduct research in lower animals and human beings, and provide undergraduate, graduate, and post-doctoral training. For further information, write to the Director of the Center, University of Texas, Austin, Texas 78712.

OTHER ABSTRACTING JOURNALS AND SERVICES

Abstracts of Hospital Management Studies (quarterly), the Cooperative Information Center of Hospital Management Studies, University of Michigan, 220 E. Huron St., 419 City Center Bldg., Ann Arbor, Mich. 48108.

AFB Research Index, American Foundation for the Blind, 15 W. 16th St., New York, N. Y. 10011.

Behavioral Research in Traffic Safety (quarterly), Behavioral Publications, 2852 Broadway, Morningside Heights, New York, N. Y. 10025.

Child Development Abstracts and Bibliography, Child Development Publications, Society for Research in Child Development, Inc., Purdue University, Lafayette, Ind. 47907.

Communication Disorders, Information Center for Hearing, Speech, and Disorders of Human Communication, The Johns Hopkins Medical Institutions, 310 Harriet Lane Home, Baltimore, Md. 21205.

Current Index to Journals in Education (monthly), CCM Information Corporation, 909 Third Ave., New York, N. Y. 10020.

Digest of Neurology and Psychiatry, Institute of Living, Hartford, Conn. 06102.

Dissertation Abstracts, University Microfilms, Ann Arbor, Mich. 48103. (Gives synopses of U. S. doctoral dissertations with an annual index.)

dsh Abstracts, Deafness, Speech and Hearing Publications, Gallaudet College, Washington, D. C. 20002.

Epilepsy Abstracts, National Institute of Neurological Diseases and Stroke, Public Health Service, Building 31, Room 8A-16, Bethesda, Md. 20014.

Exceptional Child Education Abstracts (quarterly), The Council for Exceptional Children, Box 6034, Mid City Station, Washington, D. C. 20005.

Excerpta Criminologica, Excerpta Criminologica Foundation, Rapenburg 38, Leiden, The Netherlands.

International Nursing Index (quarterly), American Journal of Nursing Company, 10 Columbus Circle, New York, N. Y. 10019.

Inventory of Social and Economic Research in Health, Health Information Foundation, 5555 S. Ellis Ave., Chicago, Ill. 60637.

Language and Language Behavior Abstracts (quarterly), Center for Research on Language and Language Behavior, University of Michigan, Ann Arbor, Mich. 48104. Order from Subscription Manager, LLBA, Meredith Publishing Co., 440 Park Ave. S., New York, N. Y. 10016.

Listing of Health and Welfare Research Projects in Local Communities, United Community Funds and Councils of America, Inc., 345 E. 46th St., New York, N. Y. 10017.

Nursing Research, American Journal of Nursing Co., 10 Columbus Circle, New York, N. Y. 10019.

Nutrition Abstracts and Reviews, Rowett Research Institute, Bucksburn, Aberdeenshire, Scotland.

Poverty and Human Resources Abstracts (bimonthly), Institute of Labor and Industrial Relations, University of Michigan-Wayne State University, P. O. Box 1567, Ann Arbor, Mich. 48106.

Psychological Abstracts, American Psychological Association, 1333 - 16th St., N. W., Washington, D. C. 20036.

Rehabilitation Literature, National Easter Seal Society for Crippled Children and Adults, 2023 W. Ogden Ave., Chicago, Ill. 60612.

Research and Study Projects Reported by FSAA Member Agencies, Family Service Association of America, 44 E. 23rd St., New York, N. Y. 10010.

Sociological Abstracts, Leo P. Chall, 15 E. 31st St., New York, N. Y. 10016.

Through the Educational Resources Information Center (formerly the Educational Research Information Center), better known as ERIC, current research and research-related information will be made available to teachers, administrators, researchers, commercial organizations, and others. ERIC also includes nineteen clearinghouses, or documentation centers, located at universities and other institutions throughout the country. Each clearinghouse will concentrate on a different subject-matter area. More complete information may be obtained by writing to the Director of ERIC, Office of Education, U. S. Department of Health, Education, and Welfare, Washington, D. C. 20202.

The Excerpta Medica Foundation, New York Academy of Medicine Building, 2 E. 103rd St., New York, N. Y. 10029, and 119-123 Herengracht, Amsterdam C, The Netherlands, has established an abstracting service on pediatrics on a yearly subscription basis. In addition to abstracts, the Foundation can provide to subscribers, at cost, photocopies and translations of complete articles.

The Human Relations Area Files have classified cultural data on primitive and non-primitive societies into 710 categories of human behavior. Complete sets of all files are available in 22 member institutions in the United States. For information, write to Dr. Clellan S. Ford, President, Human Relations Area Files, Yale University, New Haven, Conn. 06520.

The Minnesota Family Study Center can supply to interested scholars bibliographic information from the Inventory of Published Research in Marriage and Family Behavior. Requests for information should be addressed to the Director, Inventory of Published Research in Marriage and Family Behavior, Social Science Tower 1026, University of Minnesota, Minneapolis, Minn. 55455.

The Library of the National Easter Seal Society for Crippled Children and Adults has initiated a photoduplication service for persons engaged in rehabilitation research. It is available without charge to personnel in educational or research institutions and health or welfare agencies, public or private. This service hopes to provide the necessary professional literature not available in local libraries. Further information may be obtained by writing to the Librarian of the Society, 2023 W. Ogden Ave., Chicago, Ill. 60612.

The Science Information Exchange, Smithsonian Institution, 209 Madison National Bank Bldg., 1730 M St., N. W., Washington, D. C. 20036, provides to qualified investigators, for a fee, selected abstracts of current research supported by foundation or government grants. The Exchange covers such fields as medicine, nursing, public health, nutrition, psychology, education, anthropology, mental health, and intercultural relations.

The World Federation for Mental Health, 19 Manchester St., London W.1, England, operates a clearinghouse for research and study projects in the field of mental health.

The Library of the National Bureau for Child Welfare (Voor Kinderbescherming), Stadhouderslaan 150, The Hague, publishes abstracts of articles in the field of child welfare each month. These are in Dutch, but those familiar with the Universal Decimal System would be able to understand something about the article. The subscription rate for documentation on cards is 30 guilders (approximately $8.40)

> In addition to these journals and services, many professional journals in such fields as pediatrics and mental deficiency include a section of abstracts regularly or once a year. There are also a number of indexes and abstracting journals in the medical area which occasionally refer to materials in the area of child development.

CHILDREN'S BUREAU
CLEARINGHOUSE FOR RESEARCH IN CHILD LIFE
WASHINGTON, D C. 20201

If you are currently engaged in research on children or their families, we would appreciate your cooperation in providing a short summary of your work for inclusion in the next issue of *Research Relating to Children.*

The Clearinghouse is the branch of the Children's Bureau which collects and disseminates information on current research relating to children and their families. Its purpose is to make such information available to research investigators and others concerned with research in child life.

The instructions on the third page of this form will serve as a guide for your summary. You will, of course, receive a free copy of the issue in which your study appears.

If you know of others doing research which might be of interest to the Clearinghouse, please give name(s) and address(es) below:

_____

_____

Thank you for your cooperation.

INFORMATION SUPPLIED BY

Name _____

Position _____

Organization and address _____

_____

_____ ZIP CODE _____

SUMMARY OF RESEARCH PROJECT

TITLE:

PURPOSE:

SUBJECTS *(Sample)*:

METHODS:

FINDINGS TO DATE, IF ANY:

DATE PROJECT INITIATED:		**ESTIMATED TERMINAL DATE:**
PRINCIPAL INVESTIGATOR(S) ONLY:	**DEGREE:**	**POSITION AND ORGANIZATION:**

COOPERATING GROUPS *(In the research or in the funding of the research)*:

PUBLICATION REFERENCES AND/OR PLANS *(If no publication is planned, please indicate under what conditions data and results will be available)*:

IF THIS REPRESENTS WORK TOWARD AN ACADEMIC DEGREE, PLEASE STATE DEGREE *(Please do not report master's theses unless they represent work beyond a doctorate, as in dentistry)*:

INSTRUCTIONS

Please report studies in progress (or recently completed) which:

center on children or their families in such areas as child growth and development, intelligence, personality, education, social adjustment, family life, physical and emotional disorders, etc.

concern service programs in the fields of child health, child welfare, or special education

Please *DO NOT* report:

studies already reported to the Clearinghouse

purely medical studies limited to morphology or physiology, the physical aspects of etiology, epidemiology or symptomatology of diseases or handicapping conditions, surgery, chemotherapy, antibiotics or physical therapy; biochemical or other laboratory studies; animal studies

educational studies of curriculum construction or materials, teaching methods, surveys of school facilities or needs, general school administration studies

studies already published in sources generally available in major libraries across the country

demonstration projects, unless there is a formal plan for evaluation

studies of test development, standardization, or validation, except for special groups of children such as blind or retarded

regularly collected material such as annual reports, work preparatory to writing handbooks; directories; research based on secondary sources

master's theses, unless they represent work beyond a doctorate, as in dentistry

THE CHILDREN'S BUREAU AND ITS CLEARINGHOUSE FOR RESEARCH IN CHILD LIFE . . . .

The Children's Bureau was established in 1912 to "investigate and report. . . . upon all matters pertaining to the welfare of children and child life among all classes of our people." From this beginning, the Bureau has extended its activities into such areas as developing standards of care for children and providing funds to States to improve conditions for children. More recently, the Bureau has established several new grants programs to support research in areas of maternal and child health and child welfare.

In keeping with the basic Act establishing the Bureau, the Clearinghouse for Research in Child Life was set up in 1948. Its function is to collect information about current research relating to children in order to make such information available for the use of investigators, administrators, program planners, and practitioners.

Investigators reporting a study to the Clearinghouse receive a free copy of the issue of *Research Relating to Children* in which their study appears. A free copy of each issue is also sent to directors of research centers and to libraries. In addition, the Clearinghouse maintains a mailing list of interested persons who receive announcements of new issues as they are published. Individuals may purchase copies from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The Children's Bureau Clearinghouse routinely exchanges information with the Science Information Exchange of the Smithsonian Institution. This organization is very helpful in providing abstracts of research supported by federal funds and by many foundations. The major source of information, however, is the individual research investigator, whose help is essential in obtaining the most complete and up-to-date coverage possible.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF CHILD DEVELOPMENT

Children's Bureau — Washington, D.C. 20201

Clearinghouse, Children's-Bureau
U. S. Department of Health,
Education, and Welfare
Washington, D. C. 20201

The following investigators are doing research concerning children or services for children. Send report forms to obtain information.

Name _____

Address _____

_____ Zip Code _____

Name _____

Address _____

_____ Zip Code _____

Name _____

Address _____

_____ Zip Code _____

Name _____

Address _____

_____ Zip Code _____

Signed _____

_____

_____ Zip Code _____

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CLEARINGHOUSE PUBLICATIONS

Bibliography on the Battered Child, revised July 1969. Copies free from the Children's Bureau, Office of Child Development, U. S. Department of Health, Education, and Welfare, Washington, D. C. 20201.

Research Relating to Emotionally Disturbed Children, 1968. A listing of studies reported to the Clearinghouse between 1956 and 1967, including publication references. Single copies free from the Clearinghouse; also available directly from the Government Printing Office, Washington, D. C. 20402, for $1.00. Do not send money to the Clearinghouse.

Research Relating to Juvenile Delinquents, 1962 (reprinted 1966). A listing of studies reported to the Clearinghouse between 1948 and 1961, including publication references. Single copies free from the Clearinghouse.

Research Relating to Mentally Retarded Children, 1966 (reprinted 1968). A listing of studies reported to the Clearinghouse between 1948 and 1965, including publication references. Single copies free from the Clearinghouse; also available directly from the Government Printing Office for 65 cents. Do not send money to the Clearinghouse.

Research Relating to Children.* An inventory of abstracts of ongoing or recently completed studies, published about every six months. Single copies of the following issues are available without charge from the Clearinghouse. (Dates indicate period during which the studies were reported to us.):

Bulletin II, Supplement 4 (February - November 1955)
Bulletin 12 (February - July 1960)
Bulletin 13 (August 1960 - January 1961)
Bulletin 16 (July 1962 - January 1963)
Bulletin 17 (February 1963 - February 1964)

Copies of the following issues are available for purchase directly from the Government Printing Office, at the prices indicated:

Bulletin 18 (March - December 1964) - $1.25
Bulletin 19 (January - September 1965) - $1.50
Bulletin 20 (October 1965 - May 1966) - $1.25
Bulletin 21 (June 1966 - April 1967) - $1.25
Bulletin 22 (May - December 1967) - $1.00
Bulletin 23 (January - August 1968) - $1.75
Bulletin 24 (September 1968 - March 1969) - $1.50

All issues not listed above are OUT OF PRINT but are available in many libraries.

*An investigator receives a free copy of the issue of Research Relating to Children in which his study appears. A free copy of each issue is available to libraries and research centers. The Clearinghouse also maintains a mailing list of interested persons who receive announcements of new issues as they are published.